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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

CROW INDIAN TRIBE, *et al.*, Plaintiffs v. UNITED STATES OF AMERICA, *et al.*, Federal Defendants, and STATE OF WYOMING, *et al.*, Defendant-Intervenors.	Case No. 9:17-cv-00089-DLC-JCL Consolidated with: CV 17-117-M-DLC; CV 17-118-M-DLC; CV 17-119-M-DLC; CV 17-123-M-DLC; and CV 18-016-M-DLC **RESPONSE TO PLAINTIFFS' STATEMENT OF FACTS IN SUPPORT OF PLAINTIFFS' MOTIONS FOR SUMMARY JUDGMENT**

Pursuant to Local Rule 56.1(b), Federal Defendants submit this response to Plaintiffs' Statement of Facts, ECF_187 and Plaintiff Robert Aland's separate Statement of Facts, ECF_187-1, Ex. A.

Organizational Plaintiffs' Statement of Facts

The grizzly bear (Ursus arctos horribilis)

1. Grizzly bears (*Ursus arctos horribilis*) are a subspecies of brown bear (*U. arctos*) that occur in North America, Europe, and Asia. 82 Fed. Reg. 30,502, 30,505 (June 30, 2017).

Response: Partially disputed. The subspecies U. a. horribilis is limited to North America. Brown bears occur in North America, Europe, and Asia. 82 Fed. Reg. at 30,505.[1]

2. Adult grizzly bears are normally solitary animals, except when females have dependent young or when bears gather at concentrations of rich food sources like bison carcasses, spawning

[1] Plaintiffs initially cite to the Federal Register for the 2017 Rule, among other documents. 82 Fed. Reg. 30502 (June 30, 2017). Thus, Federal Defendants used the same citations for the ease of anyone reviewing their response to Plaintiffs' statement of facts. However, Plaintiffs shift between Federal Register citations and Administrative Record citations for the same documents throughout their statement of facts. FWS_Rel_Docs:001435. To be consistent, Federal Defendants continued to use the Federal Register citations throughout the response.

trout streams, root fields, watering spots, and/or army cutworm moth sites. 82 Fed. Reg. 30,505. Grizzly bears are not territorial and home ranges for bears frequently overlap. *Id.*

Response: Partially disputed. The 2017 Rule does discuss the concentration of bears at food sources. FWS is unsure of the Plaintiffs' source for the second part of the first sentence regarding bears gathering "at concentrations of rich food sources like bison carcasses, spawning trout streams, root fields, watering spots, and/or army cutworm moth sites."

3. Home range size for grizzly bears is affected by resource availability, sex, age, and reproductive status. 82 Fed. Reg. 30,505. Females with cubs-of-the-year or yearlings have the smallest home range size. *Id.* Adult male grizzly bears in the Greater Yellowstone Ecosystem ("Yellowstone region") have a home range of approximately 309 square miles. *Id.* Adult female home ranges in the Yellowstone region are approximately 81 square miles. *Id.* Large home ranges for adult males helps enhance maintenance of genetic diversity in the population by enabling males to mate with numerous females. *Id.*

Response: Undisputed.

4. Grizzly bears mate from May through July. 81 Fed. Reg. 13,174, 13,177 (Mar. 11, 2016); FWS-LIT-019230. The majority of mating occurs in June. *Id*. A female's fertilized embryo does not implant into the uterus for further development until late fall. *Id*. Greater fat stores obtained by female grizzly bears at the end of the fall are positively correlated with earlier birth dates and quicker growth rates for cubs. *Id*. Females may have a body fat threshold below which females may not produce cubs. *Id*. Cubs are born in the den in late January or early February and nurse for three to four months inside the den. *Id*. Cubs remain with their mother for 1.5 to 2.5 years. *Id*.

Response: Undisputed.

5. Grizzly bears have one of the slowest reproductive rates among all terrestrial mammals. 81 Fed. Reg. 13,177; FWS- LIT-019230. The average age of first reproduction by a grizzly in the Yellowstone region is six years old. *Id*. Litter size ranges from one to four cubs with a mean litter size of 2.04 cubs. *Id*. The average time between litters in the Yellowstone region is 2.78 years. *Id*. It takes a female grizzly bear ten or more years to replace herself in the

population. *Id*. Grizzly bears cease reproducing in their twenties. *Id.* The grizzly bear's limited reproductive capacity "precludes any rapid increase in the population." FWS-LIT-14545.

Response: Partially disputed. Bears in the Greater Yellowstone Ecosystem may have their first reproduction between 3 and 8 years of age. 81 Fed. Reg. at 13,177. The mean litter size from 1983-2001 was 2.04 and 2.12 from 2002-2011. *Id.* Additionally, the source cited by Plaintiffs states that it "may take" a female grizzly bear 10 or more years to replace herself in a population. *Id.* Grizzly bear females cease reproducing "some time in their mid-to-late 20s." *Id.*

6. Grizzly bears in the contiguous United States occupy dens for four to six months each year, beginning in October or November. 81 Fed. Reg. 13,177; FWS-LIT-019230. In preparation for hibernation, bears increase their food intake dramatically during a stage called hyperphagia. *Id*. Hyperphagia occurs throughout the two to four months prior to den entry (August through November). *Id*. During this period, excess food is converted into fat and grizzly bears gain as many as 3.64 pounds per day. *Id*. Grizzly bears must consume food rich in protein and carbohydrates in order to build up fat reserves to survive

denning and post denning periods. *Id*. Fat stores are important for hibernating bears, as they are a source of energy and insulation. *Id*. Fat stores are equally important in providing energy to the bear upon emergence from the den, when food is still sparse relative to metabolic requirements. *Id*.

Response: Undisputed.

7. Grizzly bears are omnivores and eat a wide-variety of foods. 81 Fed. Reg. at 13,177. The ability to use a wide-variety of food resources is in part why the subspecies is able to occupy habitats from deserts to alpine mountains and everything in between. 81 Fed. Reg. at 13,178.

Response: Undisputed.

8. Grizzly bear diets are highly variable among individuals, seasons, years, and location. 81 Fed. Reg. at 13,178; FWS-LIT-019231.

Response: Undisputed.

The grizzly bear's decline in the contiguous United States

9. Grizzly bears once occurred throughout the western half of the contiguous United States, central Mexico, western Canada, and most of Alaska. 82 Fed. Reg. 30,508.

Response: Undisputed.

10. Prior to European settlement, there were approximately 50,000 grizzly bears in the western United States. 82 Fed. Reg. 30,508. With European settlement and government- funded bounty programs, grizzly bears were shot, poisoned, and trapped wherever they were found. *Id*. This resulted in dramatic declines in population numbers and range throughout the 1900s. *Id*. By the 1930s, grizzly bears had lost approximately 98 percent of their historic range in the western United States. *Id*.; FWS-LIT- 014540. Of the 37 grizzly bear populations present in the contiguous United States in 1922, 31 were extirpated by 1975. *Id*. By the early 1970s, only a few hundred grizzly bears remained in the contiguous United States in a few isolated locations. *Id*.

Response: Partially disputed. Dramatic declines did not occur in population numbers and range "throughout the 1900s." The source cited describes declines that occurred to varying degrees until the grizzly bear was listed in 1975 at which point population numbers stabilized or increased in many areas. FWS_LIT_01163-64; FWS_LIT_014550-51.

11. In 1975, approximately 136 to 312 grizzly bears likely remained in the Yellowstone region. 82 Fed. Reg. 30,508. This is a best-guess based on an estimated minimum population size. *Id*. Accurate population estimates (actual and trend) for grizzly bears are difficult to obtain. 82 Fed. Reg. 30,506; FWS-LIT-014333; FWS- LIT-014559–60; FWS-LIT-003217. For grizzly bears, it takes at least six years' worth of monitoring data and as many as 30 females with radio-collars to accurately estimate average annual population growth. 82 Fed. Reg. 30,506.

Response: Undisputed.

12. In 1975, the Service listed all grizzly bears in the contiguous United States as a threatened species under the Endangered Species Act ("ESA"). 40 Fed. Reg. 31,734 (July 28, 1975); FWS-LIT-018564.

Response: Undisputed.

13. The 1975 listing of grizzly bears in the contiguous United States as a threatened species was not the listing of a "species" because grizzly bears are a subspecies of brown bear. 40 Fed. Reg. at 31,734. The 1975 listing of grizzly bears did not list all members of

the subspecies as a "threatened" species under the ESA because only grizzly bears in the lower-48 contiguous United States were protected. *Id*. The 1975 listing of grizzly bears in the contiguous United States as "threatened" amounted to the listing of a population segment of grizzly bears as a "threatened" species under the ESA. *Id*.; FWS-LIT-016078. In a 2011 five-year status review, the Service claimed that the 1975 listing was the listing of a "distinct population segment" or "distinct population segment." FWS-LIT-016195; FWS-LIT-016170.

Response: Disputed. 40 Fed. Reg. at 31,734; FWS_LIT_16073..

14. In the 1975 listing, the Service determined that grizzly bears in the contiguous United States were threatened by a combination of factors. 40 Fed. Reg. 31,734; FWS-LIT-018564. The Service determined that grizzly bears in the contiguous United States had lost a significant amount of habitat and range and were now confined to only three regions in Montana, Idaho, and Wyoming, including: (1) the Selway-Bitterroot Ecosystem in Idaho; (2) the Bob Marshall Ecosystem in northern Montana; and the Yellowstone region. *Id*.

Response: Disputed. The 1975 Rule does not state that grizzly bears were at that point confined to "only three regions." Rather, the rule states that grizzly bears occurred almost entirely in three ecosystems. FWS_LIT_018564.

15. Isolation and the lack of connectivity between grizzly bear populations in the contiguous United States was considered a threat to grizzly bears in the 1975 listing. 40 Fed. Reg. 31,734; FWS-LIT-018564. The Service states that "in two of the three areas where grizzly bears still occur, the bears are isolated from other populations so that they cannot be reinforced, either genetically or by movement of individual bears." *Id*.

Response: Undisputed as to the content of the Rule.

16. Other threats to grizzly bears identified in the 1975 listing included human-caused mortality, the inadequacy of existing regulatory mechanisms, an overall lack of data and scientific information on grizzly bear needs, and increasing human use of Yellowstone National Park and surrounding areas. 40 Fed. Reg. 31,734; FWS-LIT-018564.

Response: Undisputed as to the content of the Rule.

17. In the 1975 listing, the Service determined that the grizzly bear population in the Bob Marshall Ecosystem (now referred to as the "Northern Continental Divide Ecosystem") was large enough and had reached "population pressures" that warranted allowing limited regulatory taking. 40 Fed. Reg. 31,735; FWS-LIT-018565. The Service developed special regulations for managing "threatened" species, authorized by section 4(d) of the ESA, to allow more discretionary mortality (including limited hunting) of grizzly bears in the Bob Marshall Ecosystem. *Id.* However, in 1991, a federal district court invalidated and enjoined hunting grizzly bears. *The Fund for Animals, Inc. v. Turner*, Civil No. 91-2201(MB) (Sept. 27, 1991) (holding 50 CFR 17.40(b)(1)(i)(E) as invalid and enjoining the Service from authorizing Montana's grizzly bear hunt); *see also* 57 Fed. Reg. 37,478 (Aug. 19, 1992).

Response: Undisputed, but for clarification, the federal district court issued a preliminary injunction preventing FWS from authorizing the October 1, 1991 hunt of grizzly bears in the Northern Continental Divide Ecosystem. 1991 WL 206232, at *9 (D.D.C. Sept. 27, 1991).

18. In the 1975 listing, the existence of a large population of grizzly bears in one isolated population — the Bob Marshall Ecosystem — did not disqualify grizzly bears in the ecosystem or contiguous United States from listing. 40 Fed. Reg. 31,734; FWS-LIT-018564. In the 1975 listing, the Service said in the future, if the grizzly bear population in the Yellowstone region "recover[s] to the point where population pressures require removal of a part of the population," consideration will be given to modifying the special 4(d) regulations for managing grizzly bears to allow more discretionary mortality. 40 Fed. Reg. at 31,735.

Response: Disputed. FWS does not describe the population as a "large population." Rather, FWS stated that the population was "large enough that bears are now wandering into settled areas where they threaten human safety and commit significant depredations on legally present livestock." 40 Fed. Reg. at 31735.

19. The 1975 listing does not allow for the delisting (or exclusion from listing) of isolated grizzly bear populations in the contiguous United States. 40 Fed. Reg. 31,734; FWS-LIT-018564. The 1975 listing is designed to ensure the grizzly bear's

"conservation in all three of these ecosystems and to protect any members of the species occurring elsewhere in the 48 conterminous States." 40 Fed. Reg. 31,735; FWS-LIT-018565. The 1975 listing rule is designed to ensure the conservation of all grizzly bears within the contiguous United States, not just isolated populations. 40 Fed. Reg. 31,735; FWS-LIT-018565.

Response: Disputed. The 1975 listing rule is just that, a listing rule. It does not supersede or limit statutory language regarding what determinations FWS is legally authorized to make at a future date. FWS has the discretion to adopt different approaches to achieving the conservation of a species and the statute explicitly authorizes FWS to identify species and downlist or delist those species as appropriate. Further, the grizzly bear was listed before the "distinct population segment" language was added to the statute in 1978 and FWS issued a policy in 1996 interpreting that statutory language. With regard to Plaintiffs' assertions about the other grizzly bear populations, the 2017 Rule does "does not change the threatened status of the remaining grizzly bears in the lower 48 States, which remain protected by the Act." 82 Fed. Reg. at 30503.

The Service's plan to recover grizzly bears in the lower-48

20. The Service completed a recovery plan for threatened grizzly bears in the contiguous United States in 1982. FWS-LIT-014322. The ESA requires preparation of recovery plans. 16 § 1533(f)(1). Recovery plans are guidance documents for the Service. 82 Fed. Reg. 30,508. Recovery plans serve as road maps for species recovery because they lay out where the Service needs to go and how to get there. *Id*. Recovery plans are often modified, amended or supplemented based on new information or new science or new priorities. *Id*.

Response: Partially Disputed. As Plaintiffs note, recovery plans may be modified when they become outdated as was the case with the 1982 recovery plan cited by Plaintiffs, which was replaced by the 1993 recovery plan based on newly available information. *See* 82 Fed. Reg. 30504. FWS also released supplements to the 1993 Recovery Plan in 2007 and 2017. *Id.*

21. The objective of the Service's 1982 recovery plan for grizzly bears in the contiguous United States was to "identify the actions necessary for the conservation and recovery of the grizzly

bear." FWS-LIT-014330. The 1982 recovery plan "attempts to provide a sequence of actions necessary for the conservation and recovery of the grizzly bear in the selected areas of the conterminous 48 states." FWS-LIT-014330.

Response: Undisputed as to the content of the plan.

22. In the 1982 recovery plan, the Service outlined the steps necessary to ensure the recovery of grizzly bears in the contiguous United States. FWS-LIT-014331. The Service identified six recovery ecosystems in the contiguous United States where grizzly bears are known to have inhabited and where suitable habitat available for grizzly bear conservation remains. FWS-LIT- 014330–31. These six ecosystems include: (1) the Greater Yellowstone Ecosystem; (2) the Northern Continental Divide Ecosystem; (3) the Cabinet-Yaak Ecosystem; (4) the Selkirk Mountains Ecosystem; (5) the Bitterroot Ecosystem; and (6) the North Cascades Ecosystem. FWS-LIT-014331.

Response: Undisputed as to the content of the plan.

23. In the 1982 recovery plan, the Service stated that it would need to "[e]stablish recovery of at least three populations in three

distinct grizzly bear ecosystems in order to delist the species in the conterminous 48 states." FWS-LIT-014330. The Service's 1982 recovery plan notes that the question of how many populations would be needed in order to delist the species and declare it recovered was "debated repeatedly" and that "[n]o one would recommend a single population in a single ecosystem as being adequate to provide a reasonable margin of safety against…systematic pressures and stochastic perturbations." FWS-LIT- 014331. The Service stated in the 1982 recovery plan that the "conservation and recovery of three populations, as opposed to only one or two populations, is believed necessary to assure perpetuation of the species to a point that no longer requires protection of the ESA." FWS-LIT-014331.

Response: Disputed. Again, the 1975 rule pre-dates the addition of "distinct population segment" language to the definition of "species" in the ESA. Similarly, the 1982 recovery plan pre-dates FWS's 1996 policy interpreting the "distinct population segment" language. Thus, those documents do not consider potential Segments in recovery efforts. Moreover, contrary to what Plaintiffs imply here, FWS has not determined that all populations of grizzly bears have been recovered

based on the status of the Yellowstone Segment. FWS continues with its efforts to conserve listed grizzly bears.

24. In 1986, the Interagency Grizzly Bear Committee ("IGBC") — an organization formed to promote the conservation of grizzly bears on National Forest, National Park, Bureau of Land Management, and state lands — published guidelines for the management of grizzly bear habitat to aid in recovery efforts. 51 Fed. Reg. 42,863 (Nov. 26, 1986); FWS-LIT-012618; 82 Fed. Reg. 30,509. These guidelines were submitted to the Service for review and formal consultation. 51 Fed. Reg. 42,864; FWS-LIT-014317; FWS-LIT-012710; 82 Fed. Reg. 30,509. The Service determined in a Biological Opinion that implementation of the IGBC's guidelines "will promote the conservation of the grizzly bear." 51 Fed. Reg. 42,864; FWS-LIT-014317; FWS-LIT-012710; 82 Fed. Reg. 30,509. The IGBC's guidelines are designed "to provide a consistent and coordinated approach toward achieving grizzly bear recovery" as mandated by the ESA. 51 Fed. Reg. 42,864; FWS-LIT-014317.

Response: Partially disputed in that in 1986 the IGBC modified guidelines that were developed in 1979. 51 Fed. Reg. at 42864. These

guidelines were developed for "grizzly protection and management in the National Forests, National Parks, and Bureau of Land Management lands," not state lands. FWS_LIT_012621. These guidelines identify five management situations, which consider unique management concerns based on the type of land area being managed. FWS_LIT_012623-25. The passage that the Plaintiffs refer to regarding the guidelines being submitted to FWS for formal consultation and FWS concluding that the implementation of the guidelines "will promote the conservation of the grizzly bear" refers to the 1979 guidelines not the 1986 revised guidelines. *Id.* Moreover, 51 Fed. Reg. 42864 cited by Plaintiffs states the following: "In 1983, the Secretaries of Agriculture and the Interior established an Interagency Grizzly Bear Committee [not guidelines] to provide a consistent and coordinated approach toward achieving grizzly bear recovery…." 51 Fed. Reg. at 42863-64 (emphasis added).

25. In 1993, the Service completed a revision to the 1982 recovery plan to include additional tasks and new information on recovery efforts. FWS-LIT-014530. The 1993 recovery plan establishes

"recovery zones" for the six ecosystems identified in the 1982 recovery plan. FWS-LIT-014556–59; FWS-LIT-014693.

Response: Undisputed.

26. The 1993 recovery plan also identifies and considers a seventh ecosystem — the San Juan Ecosystem in Colorado — as an additional recovery zone based on the availability of suitable habitat. FWS-LIT-14552; FWS-LIT-014556–57.

Response: Partially disputed. The 1993 recovery plan does not "consider" the San Juan Ecosystem. It states that "[d]ecisions concerning the status of the San Juans as an evaluation area are pending." FWS_LIT_014557.

27. The 1993 recovery plan uses three measurable parameters as indicators of population status: (a) number of females with cubs; (b) number of known human-caused mortalities; and (c) the distribution of family groups throughout the ecosystem. FWS-LIT-014560. These three parameters used by the Service to set recovery criteria and targets in the 1993 recovery plan differ from the parameters and criteria used in the 1982 recovery plan. FWS-LIT-014560; FWS-LIT-014693. The Service states that the 1993 recovery plan criteria and

targets are more easily measured on an annual basis. FWS-LIT-014693.

Response: Partially disputed as to criteria (b), which the 1993 Recovery Plan describes as "annual number of human-caused mortality." Human-caused mortality will be measured as a percentage of the population estimate to allow mortality limits to adjust with population size. FWS_LIT_014561-62. The Plan calls for this kind of assessment because sustainable mortality is not about the number of mortalities; rather, it is about ensuring that mortality is limited to a rate that is offset by sufficient reproduction. FWS_LIT_014561. In any event, these criteria were revised by the 2007 Supplement to the Recovery Plan. FWS_LIT_15486. The habitat-based recovery criteria set out in the 2007 Supplement are centered on studies and modeling establishing that the protection and management of secure grizzly bear habitat "is one of the most effective management actions to ensure population persistence." 82 Fed. Reg. at 30508.

28. The 1993 recovery plan recognizes the importance of linkage between the grizzly bear recovery zones to the species' conservation. FWS-LIT-014565; FWS-LIT-014693. The Service states

that fragmentation of habitat and the isolation of populations is a "major factor" contributing to the demise of wildlife species, including grizzly bears in the contiguous United States. FWS-LIT-014693.

Response: Partially disputed in that the 1993 recovery plan states that "[o]ne factor that may affect the sustainability of grizzly bear populations in the future is the ability of individual animals to move between ecosystems. Accurate information is necessary to assess the potential for this type of movement in linkage zones…." FWS_LIT_014565 (emphasis added). With regard to the Plaintiffs' second sentence, FWS clarified that, the "five known grizzly bear populations in the lower 48 states are largely if not completely isolated from each other, although four [of these five populations] are contiguous with Canadian bear populations." FWS_LIT_14693.

29. The Service states that it is "widely accepted in conservation biology that island populations of any species are subject to high rates of extinction and that these rates are directly related to the size of the island. Wide ranging mammals are particularly sensitive to the detrimental effects of insular distribution." FWS-LIT-014564. The Service states that the "five known grizzly bear

populations in the lower 48 states are largely if not completely isolated from each other." FWS-LIT-014693.

Response: Partially disputed. As noted in response to paragraph 28, FWS also states that four of the five grizzly bear populations in the lower 48 states are contiguous with Canadian bear populations. FWS_LIT_14693.

30. The Service states that the population of grizzly bears in the Yellowstone region "is completely isolated from populations in other U.S. ecosystems and Canada." FWS-LIT-014694. In the 1993 recovery plan, the Service states that the population of grizzly bears in the Yellowstone region is "vulnerable to the detrimental effects of the loss of genetic diversity, and to environmental and demographic stochasticity" due to its small size and isolation. FWS-LIT-014694. The 1993 recovery plan commits the Service to study the potential for linkage between the grizzly bear recovery zones and develop strategies to conserve, or restore where possible, the connectivity within and between the recovery zones. FWS-LIT-014565–66; FWS-LIT-014693.

Response: Partially disputed. In 1993, when the Yellowstone population was much smaller and numbered approximately 300 bears, FWS noted that its "small size and isolation make it vulnerable." FWS_LIT_014694. FWS also recognized that connectivity between the Yellowstone population and the other grizzly ecosystems "is not likely to be realized in the near future because of the distance to other ecosystems and the intervening human development and alteration of landscape. Therefore, the recovery plan recommends that one grizzly be placed into the ecosystem from an outside population every ten years as an effort to maintain the genetic health of the population." *Id.* Currently, the distance has shortened between the Northern Continental Divide Ecosystem (NCDE) and Yellowstone populations (FWS_Rel Docs_001451, FWS_LIT_019418) and the genetic health of the Yellowstone population has improved due to the significant increase in population size (FWS_Rel Docs_001469, FWS_LIT_005974). Additionally, FWS disputes Plaintiffs' assertion that the 1993 recovery plan "commits" FWS to particular actions because, as

Plaintiffs acknowledge in paragraph 20 above, recovery plans are "guidance documents."

31. In the 1993 recovery plan, the Service states that each individual ecosystem of grizzly bears will remain listed until its specific recovery criteria are met and that the "species throughout the lower 48 States can be delisted when the populations in all established recovery zones have been delisted." FWS-LIT-014533.

Response: Partially disputed in that the Plaintiffs' statement that "each individual ecosystem of grizzly bears will remain listed until its specific recovery criteria are met" is ambiguous. In the 1993 recovery plan, FWS explained that the *recovery objective* is to delist "each of the remaining populations by population as they achieve the recovery targets," FWS_LIT_14533, and the *recovery effort* is to focus on "establishing viable populations in the six to seven areas … where the grizzly was known to or believed to exist when it was listed in 1975," FWS_LIT_14540; *see also* FWS_LIT_14558 ("Grizzly bear populations may be listed, recovered, and delisted separately.").

32. The piecemeal recovery objective in the 1993 recovery plan differs from the recovery objective in the 1982 recovery plan. *See*

FWS-LIT-014330 (stating objective in 1982 recovery plan is to "[e]stablish recovery of at least three populations in three distinct grizzly bear ecosystems in order to delist the species in the conterminous 48 states"). The 1993 recovery plan does not alter the 1975 lower-48 grizzly listing rule, which remains in effect. 40 Fed. Reg. at 31,734; 83 Fed. Reg. 18,737 (April 30, 2018). The 1993 recovery plan's piecemeal approach was also adopted prior to the Service's 1996 distinct population segment policy, 61 Fed. Reg. 4,722 (February 7, 1996). The Service noted that the 1993 recovery plan's objective to delist individual populations, once recovery criteria are met, may not comply with the Service's 1996 population segment policy. FWS-Del-Em-00151569–70. The Service also no longer considers the 1993 recovery plan to reflect the best available science. FWS-LIT-016080.

Response: Disputed. To the extent that Plaintiffs imply in the first sentence that the 1993 recovery plan calls for an approach that requires less to achieve recovery than the 1982 recovery plan, that is incorrect. As Plaintiffs note, the 1982 recovery plan calls for the recovery of three populations while the 1993 recovery plan provides

that all six populations have to meet recovery criteria for the entire lower 48 to be considered recovered. Moreover, the cited email does not state that the recovery plan objective does not comply with the 1996 distinct population segment policy. Rather, the email notes that the Cabinet/Yaak, Selkirk, North Cascades, and Bitterroot populations may not individually qualify as distinct population segments because they may not be significant to the species as a whole, a requirement set forth in the 1996 distinct population segment Policy. Moreover, if those populations lose their ESA status, it may be difficult to recover them. Regarding the 1993 recovery plan, the complete statement in the 2011 5-year review cited by Plaintiffs is as follows: "Except for the [Greater Yellowstone Area Ecosystem], the recovery plan and the associated recovery criteria have not been updated since the plan was released in 1993 and supplemented in 1996 and 1997 with chapters for the [Bitterroot Ecosystem] and [Northern Cascades Ecosystem], respectively. Thus, the plan no longer reflects the best available and most up-to-date information on the biology of the species and its habitat." FWS_LIT_016080-81.

33. In 1995, a federal district court found the Service's 1993 Recovery Plan violated the ESA. *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 112–13 (D.D.C. 1995) (finding the Service failed to meet its obligation under the ESA to incorporate objective, measurable criteria into the Recovery Plan adequately addressing each factor that threatened grizzly bears, including destruction of range and genetic isolation). The parties in that matter subsequently reached a settlement that required the Service to develop habitat-based criteria for adoption into the Grizzly Bear Recovery Plan. *See Greater Yellowstone Ecosystem v. Servheen*, 672 F. Supp. 2d 1105, 1110 (D. Mont. 2009).

Response: Undisputed as to the content of those cases.

34. In 1996 and 1997, the Service released supplemental chapters to the 1993 recovery plan to direct recovery efforts in the Bitterroot Ecosystem and North Cascades Ecosystems. FWS-LIT-014705; FWS-LIT-014733; 82 Fed. Reg. 30,509. In both ecosystems, the Service outlined plans in the 1996 supplement and 1997 supplement to reintroduce grizzly bears to assist with recovery efforts. FWS-LIT-014707; FWS-LIT-014737.

Response: Disputed. The page cited from the 1997 supplement states that, for grizzly bears in the North Cascades, a "range of alternatives should be considered for recovery of this population…from no action to augmentation of the population in the North Cascades with bears from another area." FWS_LIT_014737.

35. In 2007, the Service revised the 1993 recovery plan by updating the demographic and habitat-based recovery criteria for the Yellowstone region. FWS-LIT-015486; FWS-LIT-015521; 82 Fed. Reg. 30,509.

Response: Disputed. FWS did not "update" the habitat-based recovery criteria in 2007. Rather, the habitat-based recovery criteria were added for the first time as part of the amendment to the recovery plan. The habitat-based recovery criteria establish objective, measureable values for levels of motorized access, secure habitat, developed sites, and livestock allotments that are compatible with a stable to increasing grizzly bear population. FWS_LIT_15521.

36. In 2013 and 2016, the Service proposed additional revisions to the 1993 recovery plan pertaining to recovery criteria for the Yellowstone region. 78 Fed. Reg. 17,708 (Mar. 22, 2013); FWS-LIT-

019025; FWS-LIT-016405; 82 Fed. Reg. 30,509. In 2017, the Service finalized those revisions and made changes to the 1993 recovery plan's criteria for the Yellowstone region. 82 Fed. Reg. 30,502.

Response: Partially disputed in that FWS finalized only the 2016 revisions, not the 2013 revisions.

The status of the Service's recovery efforts for grizzly bears in the lower-48

37. The Service has not met the recovery objectives or goals from the 1975 listing rule. 40 Fed. Reg. at 31,734; FWS-LIT- 014322. The Service has not met the recovery objectives or goals of the original 1982 recovery plan. FWS-LIT-014530. The Service has not met the recovery objectives or goals of the 1993 recovery plan, as modified and supplemented. 82 Fed. Reg. 30,502. Grizzly bears are not recovered throughout the contiguous United States. 82 Fed. Reg. 30,508. Five of the six known grizzly bear ecosystems in the contiguous United States remain isolated from one another. 82 Fed. Reg. 30,509; FWS-LIT-014693.

Response: Disputed. The 1975 listing rule does not set out recovery objectives or goals. Thus, the Service is unsure to what Plaintiffs refer in the first sentence of this paragraph. Moreover, as the Plaintiffs

point out, the 1982 and 1993 recovery plans have been amended over the years to consider up-to-date information on the species' biology and recovery needs and, thus, those older recovery plans no longer reflect the best available science. *See, e.g.*, ¶¶ 32-33. The Service consistently implemented the 1993 Recovery Plan's direction, focusing listing and recovery efforts separately on each Ecosystem. 82 Fed. Reg.at 30517. Moreover, contrary to Plaintiffs' assertions, the Yellowstone population has met its recovery criteria as modified and supplemented. Finally, as previously noted, four of the remaining grizzly bear populations are connected to Canadian populations. FWS_LIT_14693.

38. The Service declined to try and recover grizzly bears to their historic range in Colorado's San Juan Mountains, as it committed to in the 1993 recovery plan. FWS-LIT-014533; 82 Fed. Reg. 30,508. The Service never followed through on its plan to complete a "habitat analysis" and evaluate Colorado's San Juan Mountains as a potential recovery area. FWS-Del-Doc-009693

(n.2). The last grizzly bear in Colorado — an adult female — was shot and killed in the San Juan Mountains in 1979. 82 Fed. Reg. at 30,509; FWS-LIT-014552.

Response: Disputed. The 1993 recovery plan does not commit to recovering bears in the San Juan Mountains. The plan states "[a] seventh area, the San Juans ecosystem in Colorado, currently is being considered for evaluation, but there has been no confirmed record of grizzly bears in the San Juans since 1979." FWS_LIT_014533 (emphasis added). The plan goes on to say that the "San Juan ecosystem is being evaluated as a possible recovery zone and is not yet considered established." *Id.*

39. The Service has failed to restore grizzly bears to Washington's North Cascades. 82 Fed. Reg. at 30,509. The last documented sighting in the North Cascades was in 1996 and a best-guess estimate is that less than 20 bears inhabit the ecosystem. *Id.* In the 1993 recovery plan the Service committed itself to develop a plan and the necessary planning documents to recover grizzly bears in the North Cascades to promote the conservation of grizzly bears throughout the contiguous United States. FWS-LIT-014654. In the

1997 supplement to the 1993 recovery plan, the Service outlined a plan for reintroducing grizzly bears into the North Cascades to promote the conservation of the species. FWS-LIT-014733. In 2013, the Service issued a proposed rule explaining why the grizzly bear population in the North Cascades warranted uplisting from threatened to endangered status, due to threats from its small size and isolation. 78 Fed. Reg. 70,104, 70,151 (Nov. 22, 2013); FWS-LIT-019027. In 2014, the Service, in conjunction with the National Park Service, initiated a National Environmental Policy Act planning process to explore reintroducing grizzly bears into the North Cascades. FWS-Del- Doc-52618; 80 Fed. Reg. 8,894 (Feb. 19, 2015). Public comment on the reintroduction project closed on April 28, 2017. 82 Fed. Reg. 4,416 (Jan. 13, 2017). The outcome of this effort remains uncertain, as the project has been delayed and no final decision has been made. *See* https://parkplanning.nps.gov/projectHome.cfm?projectID=44144 (last visited June 10, 2018); *see also* https://docs.house.gov/meetings/AP/AP00/20180606/108402/HMKP-115-AP00-20180606-SD004.pdf at 11 (documenting political attempt

to defund North Cascades grizzly bear reintroduction effort) (last visited June 12, 2018). Without human intervention, North Cascades grizzly bears "could disappear because individual bears are increasingly isolated and have limited opportunity to breed. Indications are that this is already happening, as confirmed observations have become increasingly rare on both sides of the international border." FWS-LIT-010095.

Response: Partially disputed. Because Plaintiffs have cited post-decisional sources here, FWS directs the Court to a press release from March 23, 2018, discussing Secretary Zinke's trip to Sedro-Woolley, Washington, to support grizzly bear restoration efforts in the North Cascades. https://www.doi.gov/pressreleases/secretary-zinke-supports-grizzly-bear-restoration-north-cascades-ecosystem (last visited July 9, 2018). Additionally, FWS anticipates finalizing the final environmental impact statement and record of decision for the NEPA process that Plaintiffs refer to around the end of the year.

40. The Service abandoned efforts to reintroduce grizzly bears to Idaho's Selway-Bitterroot region. FWS-Del-Doc-52618. The Service's 1982 recovery plan called for the evaluation of the Selway-

Bitterroot as a potential recovery area for grizzly bears. FWS-LIT-014331; 65 Fed. Reg. 69,624, at 69,625 (Nov. 17, 2000); FWS-LIT-018609. Grizzly bears historically occupied the Selway- Bitterroot. 65 Fed. Reg. 69,625 (FWS-LIT-018609); FWS-LIT- 014706. In 1991, the IGBC concluded that the Selway-Bitterroot provided suitable habitat and could support approximately 200 to 400 grizzly bears. 65 Fed. Reg. 69,625; FWS-LIT-018609. The IGBC endorsed the Selway-Bitterroot as a grizzly bear recovery area and directed the Service to initiate measures to achieve recovery in the area. 65 Fed. Reg. 69,625; FWS-LIT-018609. The Service's 1993 recovery plan and 1996 supplement to the recovery plan outlined a plan for reintroducing grizzly bears into the Selway-Bitterroot. FWS-LIT-014530; FWS-LIT-014705. In 2000, the Service issued a final decision and rule on the establishment of a non-essential experimental population of grizzly bears in the Selway-Bitterroot. 65 Fed. Reg. 69,624; FWS-LIT-018607. The Service's decision and rule authorizes the reintroduction of grizzly bears into the Selway-Bitterroot pursuant to a special rule in order to reestablish a viable grizzly bear population in the area,

which is one of six grizzly recovery areas identified in the 1993 Recovery Plan. 65 Fed. Reg. 69,624; FWS-LIT-018607.

Response: Disputed. Although FWS has prioritized other ecosystems, recovery efforts for Selway-Bitterroot have not been "abandoned." FWS designated the Bitterroot Ecosystem as a nonessential experimental population. FWS_Del_Doc_52618. The 1982 recovery plan provides that a consensus was reached that three populations—Yellowstone, Northern Continental Divide, and Cabinet-Yaak should be given priority in recovery planning. FWS_LIT_014331. "If additional funding is available," preliminary surveys in the Selkirk Mountains, the Selway-Bitterroot Ecosystem, and the North Cascades are recommended in that order. *Id.*

41. The reestablishment of a grizzly bear population in the Selway-Bitterroot will increase the survival probabilities and further the conservation of the subspecies in the contiguous United States. 65 Fed. Reg. 69,625; FWS-LIT-018609. Reintroducing grizzly bears to the Selway-Bitterroot will enhance grizzly bear conservation over the long-term by providing an additional population and thus adding a measure of security for the species. *Id.*; FWS-Emails-033886.

Reintroducing grizzly bears to the Selway-Bitteroot will improve the chances of connectivity for grizzly bears in the Yellowstone region. FWS-Emails-033886.

Response: Partially disputed. FWS notes that the 2000 rule establishing a nonessential experiment population in the Bitterroot area cited by Plaintiffs makes the stated assertions; however, the rule further explains that the absence of this population "will not diminish the survival probabilities for bears in other ecosystems." 65 Fed. Reg. at 69625.

42. On June 22, 2001, the Service issued a proposed rule to remove the rule on the establishment of a non-essential experimental population of grizzly bears in the Selway-Bitterroot region, but this proposed rule was never finalized. 66 Fed. Reg. 33,620 (June 22, 2001). Grizzly bears have not been reintroduced to the Selway-Bitterroot. 82 Fed. Reg. 30,509. The Service has no plans to reintroduce grizzly bears to the Selway-Bitterroot. "[R]eintroductions [to the Selway-Bitterroot] never occurred and the area remains unoccupied." FWS-Del-Doc-52618.

Response: Partially disputed. As FWS noted above, starting from the 1982 recovery plan, a consensus was reached that priority should be given to the Yellowstone, Northern Continental Divide, and Cabinet-Yaak populations in recovery planning. FWS_LIST_014331. Nevertheless, FWS confirmed in the 2017 Rule that FWS is "committed to pursuing grizzly bear recovery in the five remaining Recovery Zones identified in the 1993 Grizzly Bear Recovery Plan." 82 Fed. Reg. at 30623.

43. The grizzly bear population in Montana's Cabinet-Yaak region experiences high levels of human-caused mortality and is likely in decline. FWS-LIT-016091. Any population increases in the Cabinet-Yaak are attributed to Montana's and the Service's augmentation of the population with additional females. FWS-LIT-016092. Approximately 48 grizzly bears inhabit the Cabinet-Yaak region. 82 Fed. Reg. 30,509. None of the Service's 1993 demographic recovery criteria for the Cabinet-Yaak region have been met. FWS-LIT-014619.

Response: Disputed. Although Plaintiffs accurately cite the 2011 five-year review, that document was outdated at the time FWS issued

the 2017 Rule. As of 2016, the Cabinet-Yaak grizzly bear population is increasing at a rate of 1.6% annually and the human-caused mortality from 2011-2016 has been below the limit set forth in the recovery criteria (Kasworm et al. 2017). Based on this updated information, the criterion #3—human-caused mortality limit—has been met from 2011-2016. FWS continues to work to achieve the rest of the recovery criteria for this population. Regarding the 2011 five-year review cited, FWS clarifies that population increases at the time were not due simply to the continual augmentation of the population; rather the population "increase is largely due to the reproductive output of a successful augmentation bear, her offspring which also have reproduced, and the augmentation of 5 additional individuals between 2005 and 2009." FWS_LIT_016092.

44. The grizzly bear population in the Selkirks remains small — only approximately 88 grizzly bears inhabit the area. 82 Fed. Reg. 30,509; FWS-LIT-016092. And this is only a best-guess based on 2011 data. *Id*. Only approximately 30 of those grizzlies are located in the contiguous United States and covered by the 1975 listing rule. FWS-

LIT-016092. None of the Service's 1993 demographic recovery criteria for the Selkirks have been met. FWS-LIT-014636.

Response: Disputed. Although Plaintiffs accurately cite the 2011 five-year review, that document was outdated at the time FWS issued the 2017 Rule. As of 2016, genotypes from rub tree samples identified a minimum of 30 grizzly bears in the U.S. portion of the Selkirk population (Kasworm et al. 2017b). Additionally, as of 2016, recovery criterion #2 had been met, meaning there was occupancy of 7 of 10 bear management units by females with young over a six-year period (Kasworm et al. 2017b). Finally, as of 2011, FWS estimated that this population was increasing at a rate of 1.9% annually. FWS_LIT_016092. FWS continues to work to achieve the rest of the recovery criteria for this population.

45. There are approximately 900 grizzly bears in the Northern Continental Divide Ecosystem. 82 Fed. Reg. at 30,509. Grizzlies in the Northern Continental Divide Ecosystem remain isolated from other populations of grizzly bears in the lower-48. *Id*. Kendall (2009) has noted that "it is likely that continued unmitigated development along the Highway 2 corridor will result in genetic fragmentation of

the grizzly bear population in the [Northern Continental Divide Ecosystem]." FWS-LIT-006072.

Response: Disputed. There are "more than 900 bears" in this ecosystem. 82 Fed. Reg. at 30509. Additionally, Plaintiffs cite Literature from 2009, which is outdated. The NCDE population is connected to the larger Canadian population. FWS_LIT_010610. And, although Kendall et al. (2009) suggested that the Highway 2 corridor may be causing habitat fragmentation, recent efforts have decreased mortality along this corridor. (MFWP, unpublished data). Research by Mikle et al. (2016) showed improved connectivity within the ecosystem from 2004 to 2012. There have also been two documented males that have moved from the Cabinet-Yaak Ecosystem to the NCDE and produced offspring (Kendall et al. 2016).

46. There are approximately 600-700 grizzly bears in the Yellowstone region. 82 Fed. Reg. at 30,509. Grizzlies in the Yellowstone region remain isolated from other grizzly bear populations in the lower-48. 82 Fed. Reg. 30,519; FWS-LIT-014694.

Response: Disputed. There are "more than 700 bears" in this ecosystem. 82 Fed. Reg. at 30509.

The Service's 2007 delisting attempt

47. The Service first attempted to delist the Yellowstone region grizzly bear population from the larger lower-48 listed entity in 2007. FWS-LIT-018659. At that time, the Service published a rule designating the Yellowstone region population as a distinct population segment ("population segment") under the ESA and removing it from the list of threatened species. *Id*.

Response: Undisputed.

48. However, conservationists challenged that decision before this Court, which issued a decision invalidating the delisting and returning the Yellowstone region grizzly bears to the list of threatened species on September 21, 2009. *Greater Yellowstone Coalition v. Servheen*, 672 F. Supp. 2d 1105, 1119–18 (D. Mont. 2009) (finding the Service failed to articulate "a rational connection between the best available science and its conclusion that bears will not be affected by declines in whitebark pine" and "did not comply with the ESA in its consideration of the adequacy of existing regulatory mechanisms for purposes of delisting"); *see also* FWS-Rel-Docs-001438.

Response: Undisputed as to the district court decision. However, on appeal, the Ninth Circuit reversed the district court on the issue of whether FWS reasonably concluded that "adequate regulatory mechanisms were in place to maintain a recovered Yellowstone grizzly population after delisting." *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1030-32 (9th Cir. 2011).

49. In 2010, the Service published a rule reinstating protections for the Yellowstone region grizzly bear population in compliance with this Court's order. "Because the Court vacated the entire delisting rule and remanded it to the Service, there is no longer a [Yellowstone region] grizzly bear [population segment]." 75 Fed. Reg. 14,496, at 14,497 (Mar. 26, 2010).

Response: Undisputed as to the contend of the notice.

50. The Service appealed this Court's judgment to the U.S. Court of Appeals for the Ninth Circuit, which affirmed this Court's decision in November 2011, holding that the Service "did not articulate a rational connection between the data before it and its conclusion that whitebark pine declines were not likely to threaten the Yellowstone grizzly bear." *Greater Yellowstone Coalition v.*

Servheen, 665 F.3d 1015, 1032 (9th Cir. 2011) (finding the ESA's "policy of institutionalized caution" prohibited the Service from taking a "full-speed ahead, damn-the-torpedoes approach to delisting" the grizzly bear).

Response: Undisputed as to that point. However, as noted in FWS's response to paragraph 48, the Ninth Circuit reversed the district court on the issue of whether FWS reasonably concluded that "adequate regulatory mechanisms were in place to maintain a recovered Yellowstone grizzly population after delisting." *Greater Yellowstone Coal.*, 665 F.3d at 1030-32.

The Service's 2017 decision to designate and delist a Yellowstone grizzly segment

51. On June 30, 2017, the Service published a final rule designating the population of grizzly bears in the Yellowstone region a "distinct population segment" ("segment") under the ESA and removing this segment ("Yellowstone grizzly segment") from the list of threatened and endangered species protected under the ESA. 82 Fed. Reg. 30,502. The Service determined that the Yellowstone grizzly segment was biologically "recovered" and no longer met the definition of a threatened species under the ESA. *Id.*

Response: Undisputed as to the content of the 2017 Rule.

52. The Service's June 30, 2017, final delisting rule took effect on July 30, 2017. 82 Fed. Reg. 30,502. The prohibitions and conservation measures provided by the ESA, including through Sections 7 and 9 of the ESA, no longer apply to grizzly bears in the Yellowstone region. 82 Fed. Reg. 30,628. Grizzly bears that travel inside the boundary for the Yellowstone grizzly segment or remain inside the segment boundary are no longer protected under the ESA. 82 Fed. Reg. 30,628.

Response: Disputed in that the 2017 Rule took effect on July 31, 2017, not on July 30, 2017.

53. The Service's decision carves out and removes the Yellowstone grizzly segment from the 1975 lower-48 listing. 82 Fed. Reg. at 30,502. In designating and delisting a Yellowstone grizzly segment, the Service states that it "did not reopen the 1975 listing rule." 83 Fed. Reg. at 18,737.

Response: Disputed. The 2017 rule identified the Yellowstone ecosystem as a distinct population segment and determined that the segment had recovered.

54. In designating and delisting a Yellowstone grizzly segment, the Service explored and debated various options for how best to remove (and whether it could remove) a population of grizzlies from the 1975 lower-48 listing. *See* FWS-LIT-01600; FWS- Del-Email-149907–09 (discussing options for revising the lower-48 grizzly listing, including the multiple segments option); FWS-Del- Email-146778 (same); FWS-Del-Doc-52621 (same); FWS-DEL- Email-146772–75 (same); FWS-Del-Doc-11380–81 (same); FWS- Del-Doc-19631 (map depicting options); FWS-Del-Doc-19632 (same).

Response: Partially disputed. FWS_LIT_01600 does not support Plaintiffs' assertions.

55. In a summary of facts outlined in a draft memo by the Director, the Service noted a "strict application" of its distinct population segment policy "could lead to the determination that the existence and recovery of smaller grizzly bear populations in the Cabinet-Yaak, Selkirk, North Cascades, and Bitterroot ecosystems were "not significant" to the taxon (*Ursus arctos horribilis* in North America), with a subsequent determination that these populations should be delisted because they do not meet the definition of a

"listable entity"." FWS-Del-Doc-52870. The Service noted that if "a strict application of the 1996 [population segment] Policy resulted in the delisting of these smaller grizzly bear ecosystems, this would directly contradict the wording and intent of the ESA and the Grizzly Bear Recovery Plan." FWS-Del-Doc-52872.

Response: Partially disputed. FWS adds that the memo responded to this concern "by committing FWS to continue grizzly bear recovery efforts in all identified recovery zones and clearly stating we will not delist any grizzly bear population in the lower 48 States for any reason other than recovery or extinction." FWS_Del_Doc_52870.

56. The Service admits that its decision to designate and delist a Yellowstone grizzly segment "may affect" grizzlies in the lower-48. 83 Fed. Reg. at 18,739. The Service admits that its decision to designate and delist a Yellowstone grizzly segment "could impede recovery of other still-listed populations." *Id*. The Service recognizes that grizzlies outside the demographic monitoring area — where mortality limits do not apply — will be subject to higher mortality levels, which could limit dispersal of grizzly bears outside of the Yellowstone region. *Id*. at 18,740. During the comment period on the

Service's decision to designate and delist a Yellowstone grizzly segment, concerns were also raised about how delisting a Yellowstone segment "may preclude population expansion and connectivity with other ecosystems." 82 Fed. Reg. at 30,556.

Response: Disputed. FWS does not state that the delisting of the distinct population segment "may affect" the status of the remaining populations as Plaintiffs imply. Instead, FWS noted from the 2017 rule that the bears outside the Yellowstone ecosystem "remain fully protected as a threatened species under the Act, that [FWS's] recovery strategy will continue to focus on ecosystem-wide recovery zones, and that the [distinct population segment] delisting does not affect the status or likely recovery of other grizzly bear zone populations…." 83 Fed. Reg. at 18739. FWS went on to say that "[i]t is possible that delisting a [distinct population segment] of an already-listed species could have negative effects on the status of the remaining species. For example, removing the Act's protections from one population could impede recovery of other still-listed populations." *Id.* In the case of the grizzly bear, FWS discussed potential implications for the remaining populations. *Id.* FWS did

comment on the issue of natural connectivity between recovery zones, which is a long-term objective but not a recovery criterion for any of the recovery zones. *Id.* FWS noted that connectivity has the greatest potential between the Yellowstone and NCDE populations. *Id.* at 18740. However, to date, there's no evidence of dispersal between the two populations and, in any event, neither population is at risk of genetic isolation. *Id.* Thus, delisting the Yellowstone population is unlikely to affect the status of the NCDE population. *Id.* As to the Plaintiffs' final sentence, the text they quote actually refers to the "concern that managing for stability may preclude population expansion and connectivity with other ecosystems," meaning that there were concerns about focusing on the average population estimate during 2002 to 2014, otherwise known as the "period of stability." 82 Fed. Reg. at 30556. One peer reviewer recommended instead to periodically reevaluate population goals. *Id.*

Threats facing grizzly bears in the Yellowstone region

57. Grizzlies "are a conservation reliant species." FWS-LIT-005970; FWS-Del-Em-00087791. "A conservation reliant species is defined as: 'Species that can maintain a self-sustaining population in

the wild only if ongoing management actions with proven effectiveness are implemented." FWS-Del-Em-00087791.

Response: Undisputed.

Low reproductive rates

58. Grizzly bears "have one of the slowest reproductive rates for terrestrial mammals, resulting primarily from the late age of first reproduction, small average litter size, and the long interval between Litters." FWS-LIT-14545. It takes six years — on average — for female grizzlies to first give birth (average litter size is approximately two cubs) with almost three years in between Litters thereafter. 81 Fed. Reg. at 13,177. It "may take a female grizzly bear 10 or more years to replace herself in a population." *Id*. The grizzly's limited reproductive capacity also "precludes any rapid increase in the population." FWS-LIT-14545.

Response: Partially disputed. The first quote has minor mistakes. Based on the page cited, it should read: Grizzly bears "have one of the lowest reproductive rates among terrestrial mammals…." Additionally, the "[a]verage age of first reproduction in the [Greater Yellowstone Ecosystem] is approximately 6 years old but can vary

from 3 to 8 years of age…Litter size in the [Greater Yellowstone Ecosystem] ranges from 1 to 4 cubs…with a mean litter size of 2.04 cubs during 1983-2001 and 2.12 cubs during 2002-2011." 81 Fed. Reg. at 13177 (citations omitted). The average time between litters in the Yellowstone ecosystem is 2.78 years. *Id.*

Isolated, small, and declining population

59. There are approximately 600-700 grizzly bears in the Yellowstone region. 82 Fed. Reg. 30,509. Grizzly bears in the Yellowstone region remain isolated from all other grizzly bear populations in the contiguous United States and grizzly bear populations in Canada. 82 Fed. Reg. 30,519; FWS-Emails-033881–82; FWS-Emails-00916 ("It is an overreach to state that the genetic health is 'very strong;' [the Yellowstone grizzly segment] remains an isolated population with lower genetic diversity than many other grizzly bear populations.").

Response: Disputed. There are "more than 700 bears" in this ecosystem. 82 Fed. Reg. at 30509. Moreover, although genetic diversity is lower than in many other grizzly bear populations, the important "point is that population isolation has not resulted in loss

of genetic diversity and that there is no evidence this would change unless overall population size decreased from current levels." FWS_Emails_000916; 82 Fed. Reg. at 30610.

60. Grizzly bear population growth is currently in decline in the Yellowstone region. 82 Fed. Reg. 30,507 (acknowledging the slowing population growth of Yellowstone grizzlies since the 2000s); 82 Fed. Reg. 30,512–13; FWS-LIT-016502 (noting population growth has slowed from 4.2-7.6% during 1983-2001 to just 0.3-2.2% during 2002-2011); FWS-LIT-003225.

Response: Disputed. Population growth stabilized in the early 2000s but has remained constant since that time. 82 Fed. Reg. at 30512, 30565; FWS_LIT_01468. The Interagency Study Team and others investigated the stabilizing growth rate trends during the 2000s, which led to numerous studies and data that "indicate that the growth rate of the … [Demographic Monitoring Area] population has slowed as bear densities have approached carrying capacity, particularly in the core area of their current range." 82 Fed. Reg. at 30513. In fact, by 2017, the population continued to grow in size and

occupy 16,286 mi² of habitat, or 92% of the suitable grizzly bear habitat in the Ecosystem. 82 Fed. Reg. at 30511.

61. Grizzly bears have been in decline in the Yellowstone region since at least 2014. FWS-Emails-058290. The grizzly population dropped from approximately 757 to 717 in 2015, and dropped again in 2016 to only 690 bears. *Id*. "Almost all simulations – 93% – show population decline. Conversely, only 7% show increase. The overwhelming weight-of-evidence supports concluding that the population declined between 2014 and 2016." FWS-Emails-000004.

Response: Disputed. The Yellowstone population is not in decline. Plaintiffs cite a public comment, the content of which is not based on published research or based on what FWS would consider the best available science. As stated in the 2017 Rule, the "best available data indicate the [Greater Yellowstone Ecosystem] grizzly bear population's trend has been relatively constant with no evidence to date of a decline, and range extent has continued to expand. We consider estimates of population trend (i.e., lambda) to be the ultimate metric to assess cumulative impacts to the population." 82 Fed. Reg. at 30544-45. In addition, the IGBST uses four different

methods to detect trend and size, none of which detect a population decline. 82 Fed. Reg. at 30565. The 2017 Rule also states that, "for a long-lived vertebrate, such as grizzly bears, inference of trend based on model-average Chao2 estimates from one year to the next is inappropriate. Trends should be investigated over long time periods; based on unpublished IGBST analyses of 2000 to 2015 data, analyses do not indicate a population decline." 82 Fed. Reg. at 30565. Lastly, the population estimate from 2017 was 718 individuals, an increase from both 2015 and 2016 (IGBST 2018).

62. The Service excluded the most recent population numbers in the June 30, 2017 final rule because the numbers were unhelpful: "Adding 2015's numbers would not necessary [sic] help our case." FWS-Emails-018429; FWS-Emails-018441 (recognizing that adding 2015 numbers would require updating population data throughout all documents).

Response: Disputed. The emails cited state that 2014 data were included, but to edit the draft to include 2015 data "might get sticky because it would mean adding 2015 data throughout the Strategy and the Rule," which would be "time consuming," and FWS was on a

"tight timeline" to make changes. FWS_Emails_018429. The 2017 Rule similarly acknowledges that FWS did not update the draft to include 2015 data because "(1) We would not have been able to update all of the data given the amount of time available to do so between the proposed rule and this final rule, and (2) intensive monitoring has been ongoing since prior to 2014 …; therefore, including data since 2014 would not have changed our assessment. In response to specific public comments, we did respond using the most recent available data…We did, however include all relevant peer-reviewed publications since 2014 and up to this final rule." 82 Fed. at Reg. 30546.

63. The Service has used four different methods to divine population trends and derive population estimates for grizzly bears in the Yellowstone region. FWS-Emails-000007. FWS originally estimated minimum population size based on the number of observed females with cubs-of-the-year and without any adjustments for females that may go undetected. *Id*. The Service then shifted to using the Chao2 method to account for undetected females with cubs-of-the-year and assuming a 0.64:1 sex ratio. *Id*. In 2012, the Service

retained using the Chao2 method but assumed a 1:1 sex ratio, which had the effect of increasing the population size even further. *Id.* State managers and Service officials recently have asserted there may be over a thousand bears in the Yellowstone region, which is a number derived from the Mark-Resight method assuming a 1:1 sex ratio. *Id.* In comments, Dr. David Mattson explained that use of these four methods are incommensurable with one another and cannot logically be used to divine population trends. FWS-Emails-000008. According to Dr. Mattson, the four methods are "apples and oranges, plus some pears." *Id.*

Response: Disputed. Plaintiffs cite a public comment, the content of which is not based on published research or based on what FWS would consider the best available science. As FWS explained in the response to comments in the 2017 Rule, the IGBST does not compare the four different methods to each other to assess population trends as implied by Plaintiffs. 82 Fed. Reg. at 30562-63. They use four different methods to estimate trends and population size and each method independently shows a stable-to-increasing population. *Id.*

The original recovery criteria in the 1993 recovery plan were based on a minimum population estimate based on unique females with cubs. In addition, the mortality limits only applied to human-caused mortality because methods were not available to estimate total mortality. When the demographic recovery criteria were updated in 2007, based on the best available science, the population estimate method was updated to account for unseen females to give a total population estimate rather than a minimum population estimate. In addition, the mortality rate was updated to include all forms of mortality, including an estimate for unknown/unreported mortality. The model-averaged Chao2 population estimate is derived from sightings of unique females with cubs (see figure 2.1 in FWS_LIT_033128 for an overview). It then uses vital rates from the population, including the sex ratio, to calculate the population estimate. The study team reviewed the vital rates in 2011 and determined that male survival had increased, shifting the sex ratio to 1:1 (FWS_LIT_033142). Mark-Resight is a separate population estimator from Chao2 and the numbers are not compared by IGBST or in the 2017 Rule to imply trend. Mark-Resight

does yield higher population estimates but yields low precision when utilized for trend detection. 82 Fed. Reg. at 30563.

Finally, the source cited by Plaintiffs states that "[s]cientists have long known that the Chao2 method tends to under-estimate total numbers of females with [cubs-of-the-year] in the population." FWS_Emails_000007. "Differences [in the methods] are merely a consequence of whether undetected females with [cubs-of-the-year] are accounted for and, if so, by what means." *Id.*

64. Traill (2009), FWS-LIT-30547, Traill (2007), FWS-LIT-030554, Reed (2003), FWS-LIT-028618, and Frankham (2013), FWS-LIT-003588 are in agreement that an isolated population of thousands (not hundreds) of grizzly bears is required to ensure the species' long-term viability.

Response: Disputed. Traill (2007) notes that "a species' or population's MVP is context-specific, and there are no simple short-cuts to its derivation." FWS_LIT_030554. In the 2017 Rule, FWS addressed the viability of grizzly bears. 82 Fed. Reg. at 30610. As reported by Kamath et al. (2015, FWS_LIT_005969), the current effective population size for the Yellowstone population is

approaching, but has not reached, the long-term viable population criterion of 500 bears. But currently lack of effective population size does not pose a risk to the Yellowstone population's viability. Additionally, although connectivity is not necessary, it is desirable and the 2016 Conservation Strategy addresses encouraging natural connectivity between the Yellowstone and other ecosystems. FWS_LIT_017036, 017066-68.

65. Small and isolated populations remain vulnerable to: (1) demographic fluctuation due to random variation in birth and death rates and sex ratio; (2) environmental fluctuation in resource or habitat availability, predation, competitive interactions and catastrophes; (3) reduction in cooperative interactions and subsequent decline in fertility and survival; (4) inbreeding depression reducing reproductive fitness; and (5) loss of genetic diversity reducing the ability to evolve and cope with environmental change. FWS-LIT-030548.

Response: Partially disputed. These statements are true as a general matter, but lack context. As the 2017 Rule explains, this issue is not a problem for the Yellowstone population which, based on

the best available science, has a current effective population size of 469, which is adequate to maintain genetic health in this population. 82 Fed. Reg. at 30535-36.

66. Traill (2007) states that "if conservation practitioners purportedly manage for population viability with a few hundred individuals or less, then they effectively manage at a 50:50 odds of success on a century time scale." FWS-LIT-030550. Traill (2007) concludes that "thousands (not hundreds) of individuals are required for a population to have an acceptable probability of riding-out environmental fluctuation and catastrophic events, and ensuring the continuation of evolutionary processes." FWS-LIT- 030547.

Response: Undisputed that the document cited makes these assertions. However, Traill et al. (2007) estimates minimum viable population size based on 287 published viable population estimates. Of these, only 95 were mammals and 9 were grizzly bears. The grizzly bear specific minimum viable population size ranged from 40-6,221 individuals, but the majority (5) were only 250 individuals. Traill 2007 supplemental material. In addition, the intent of the review is to "derive a target MVP for data-deficient species." FWS_LIT_030560.

The Greater Yellowstone Ecosystem is not a data-deficient species and recent research by Kamath et al. (2016) shows that the current effective population size of 469 is adequate to maintain genetic health. 82 Fed. Reg. at 30535-36.

67. Frankham (2013) states "the [minimum viable population] size for 99% persistence for 40 generations for a typical outbreeding species is in the order of several thousand" animals. FWS-LIT-003593.

Response: Partially disputed. Frankham (2013) asserts that data in Traill (2007) supports Plaintiffs' assertion here. However, the 2017 Rule found that, "[a]lthough the current Ne of 469 (Kamath *et al.* 2015, p. 5512) is approaching, but has not reached, the long-term viable population criterion of an Ne 500 bears (Franklin 1980), we are confident that the, as yet, lack of Ne does not currently pose a risk to the [Greater Yellowstone Ecosystem] grizzly bear population's viability." 82 Fed. Reg. at 30610.

68. Reed (2003) states that "approximately 5,800 adult animals are needed for a 95% chance of persistence over 40

generations, 4,700 for 90% persistence, and 550 for a 50% chance of persistence." FWS-LIT-028622.

Response: Partially disputed. The assertions from Reed (2003) are not specific to grizzly bears. The data on grizzly bears considered showed minimum viable adult population sizes of 469 and 600. Miller and Waits said that a minimum population size of at least 500 animals within the Demographic Monitoring Area will ensure short-term genetic health, as is set forth in recovery criterion #1 of the revised demographic recovery criteria for the Greater Yellowstone Ecosystem and the 2017 Rule. 82 Fed. Reg. at 30514; FWS_LIT_009423; FWS_LIT_016423-24. Moreover, as FWS stated in the response to comments in the 2017 Rule, "based on peer-reviewed literature that specifically addresses genetics of the [Greater Yellowstone Ecosystem] grizzly bears, as well as other relevant genetic literature, Kamath *et al.* (2015, entire), combined with Miller and Waits (2003, entire), suggests that although the [Greater Yellowstone Ecosystem] grizzly bear population is isolated, there is no evidence of a 'shrinking gene pool.' Although the current effective population size for the [Greater Yellowstone Ecosystem] grizzly bear

is lower than what is recommended by published literature on evolutionary theory (e.g., Franklin 1980, p. 136) for evolutionary success in the absence of management, it is important to note that the recommendation is based on non-managed populations. We remain confident that genetic management for the Greater Yellowstone Ecosystem grizzly bear population will effectively address future genetic concerns (Hedrick 1995, p. 1004; Miller and Waits, p. 4338). 82 Fed. Reg. at 30610.

69. The International Union for Conservation of Nature ("IUCN's") criteria for "vulnerable" populations classifies populations below a thousand individuals as vulnerable, meaning it is threatened with becoming an endangered species. FWS-Pub- Cmt-03915; 82 Fed. Reg. at 30,558 (recognizing that the Yellowstone grizzly segment meets the IUCN's criteria for a "vulnerable" population).

Response: Partially disputed. As the 2017 Rule explains, "the [Greater Yellowstone Ecosystem] grizzly bear population meets one of the IUCN criteria for vulnerable (population size estimated at less than 1,000 mature individuals), [FWS's] recovery and post-delisting management goals were designed to provide for the long-term

conservation of the [Greater Yellowstone Ecosystem] grizzly bear population by ensuring sufficient control of human-caused mortality and maintenance of suitable habitat." 82 Fed. Reg. at 30558.

70. The International Association for Bear Research and Management, stated that 700 bears in an isolated region is not a large population and that setting a goal of maintaining a population at a certain numerical size (674 individuals) is not only impractical, but seems counter to other stated conservation strategies of allowing the population to fill all suitable habitat, and even expand to connect to the [Northern Continental Divide Ecosystem] and possibly the Bitterroots, the latter of which is a significant and important component of protecting grizzly bears as a species." FWS-Pub-Cmt-03915, 03920.

Response: Partially disputed. FWS adds from its response to these comments in the 2017 Rule: "[W]e agree that it is not practical or even possible to manage for an exact population target as populations naturally and inevitably fluctuate through time. The States' agreement to manage within the confidence intervals around 674 bears provides reasonable management flexibility in recognition of

the complexities of the system and of managing grizzly bears." 82 Fed. Reg. at 30556. In addition, although connectivity is not necessary for the recovery or delisting of the Greater Yellowstone Ecosystem population, the 2016 Conservation Strategy and Montana's State management plan include a long-term goal of allowing grizzly bear populations in southwestern and western Montana to reconnect through the maintenance of non-conflict grizzly bears in areas between the ecosystems. 82 Fed. Reg. at 30581. The State of Montana will manage discretionary mortality to retain the opportunity for natural movement between ecosystems.

71. The American Society of Mammalogists and the Society for Conservation Biology, explain that the current total population of grizzly bears in the entire lower-48 (the "metapopulation") of no more than 1,800 animals is at least five to eleven times too few individuals to assure long-term persistence. FWS-Pub-Cmt-004191–93. The American Society of Mammalogists and the Society for Conservation Biology, and sixty-four scientific experts are in agreement that an isolated population of 600-700 grizzlies in the Yellowstone region is not a "recovered" population. *Id.*; FWS-Pub-Cmt-006108.

Response: Undisputed that the public comments cited make the stated assertions. However, as FWS explained in response to paragraphs 66 and 68 above, these assertions are not supported by species-specific publications or what FWS considers the best available science.

72. Comments provided to the Service during the peer review process also raise concerns about the Service's "recovery" finding. *See* FWS-Rel-Docs-005200–02; FWS-Rel-Docs-005203–04; FWS-Rel-Docs-005211. During the peer review process, reviewers raised concerns with the Service's numerical limits and conclusion that the Yellowstone grizzly segment has reached a "recovered" population size. FWS-Rel-Docs-005200–02; FWS-Rel-Docs-00521. Peer reviewers stated that there is "no scientific basis for the [proposed rule's] lower limit of 500 bears" and that "to manage populations at pre-determined numeric values (or ranges of values) can be inherently problematic." *Id*.

Response: Partially disputed. Although the peer review cited at FWS_Rel_Docs_005200 raises concerns about the use of the lower limit of 500 bears, the peer review also provides that, if implemented,

the Conservation Strategy is adequate to reasonably ensure the long-term viability of the Greater Yellowstone Ecosystem population. Specifically, the peer review notes that "[t]here is no basis for concern about the long-term viability of the population except for the fact that we cannot anticipate the future." FWS_Rel_Docs_005201. The second peer review cited at FWS_Rel_Docs_005211 (521 appears to be a mistake) does make the quoted assertion. However, the peer review goes on to say that "having periodic reassessments of population goals in the context of dynamic processes could mitigate this concern." FWS_Rel_Docs_005211. That peer review also says, "[o]verall I believe [the Conservation Strategy] is adequate to facilitate the long-term viability of this grizzly bear population." *Id.*

73. The Service stated that "the effective population size and heterozygosity levels of the [isolated Yellowstone grizzly segment] are only adequate for the next several decades [approximately 20 years]." 83 Fed. Reg. at 18,741.

Response: Disputed. FWS stated: "[W]hile successful dispersal is possible, the likelihood is low due to large areas of unsuitable habitat between populations. Currently, the effective population size and

heterozygosity levels in the [Greater Yellowstone Ecosystem] are adequate to maintain genetic health of the [Greater Yellowstone Ecosystem] population for at least the next several decades." 83 Fed. Reg. at 18741 (citations omitted).

74. For grizzly bears and other mammals, the best available science works with a timeframe of 99% probability of surviving 40 generations, which equates to roughly 400 years for grizzly bears (10 years per generation). *See* FWS-LIT-028618 (Reed (2003) describing appropriate duration for assessing minimum population viability); FWS-LIT-003593 (Frankham (2013) recommending the "standardized 99% probability of persistence for 40 generations" be used); FWS-LIT-30559 (Traill (2007) (same)); *see also* FWS-LIT-028625 (Table 3, providing time frames).

Response: Disputed. As FWS explained in response to paragraphs 66 and 68 above, these assertions are not supported by species-specific publications or what FWS considers the best available science, which includes the population viability analysis by Boyce et al. (2001) and the effective population size by Kamath et al. (2016).

75. Miller and Waits (2003) concluded that an effective (not total or census) population size of at least 500 to 5,000 individuals is generally required to maintain *long-term* evolutionary potential and noted that the Yellowstone grizzly segment "is unlikely" to ever reach that number. FWS-LIT-009423. Miller and Waits (2003) noted that concerns about the "genetic consequences of inbreeding and isolation are likely to transpire for longer periods (decades and centuries)" which is within the recommended timeframe for evaluating extinction risk. *Id*. Miller and Waits (2003) raised concerns about threats to the Yellowstone grizzly segment from lack of connectivity, loss of habitat, and high levels of human-caused mortality. FWS-LIT-009423.

Response: Partially disputed. Miller and Waits (2003) say that "[i]t has been argued" that the population size should be at least "500-5000 to maintain long-term evolutionary potential in the form of additive genetic variance." FWS_LIT_009423. The study states that "it is unlikely that genetic factors will have a substantial effect on the viability of the Yellowstone grizzly over the next several decades." *Id.*

76. Klamath (2015) found that while the current effective population of grizzlies in the Yellowstone region may be large enough

to avoid "inbreeding depression" currently, grizzlies are a "conservation-reliance species," FWS-LIT-005970, and the "historically small [effective population size], relatively low diversity, and isolation over many generations suggest the grizzly population could benefit from increased fitness following the restoration of gene flow . . . particularly given the unpredictability of future climate and habitat changes." FWS-LIT-005979.

Response: Partially disputed. To the extent that Plaintiffs imply that the Yellowstone population is a "conservation-reliant" species, Kamath (2015) is referring to grizzly bears in the lower 48 States, not specifically the Yellowstone population. FWS_LIT_005970. Moreover, Kamath (2015) states that the study suggests that current effective population sizes are "sufficiently large" "to avoid substantial accumulation of inbreeding depression, reducing concerns regarding genetic factors affecting the viability of Yellowstone grizzly bears." FWS_LIT_005979.

77. The Service has emphasized that "recovery" for the Yellowstone grizzly segment is contingent upon establishing connectivity between grizzlies in the Yellowstone region and other

subpopulations. FWS-Del-Em-00119567 (recovery requires linkage between recovery zones); FWS-Del-Em-00127058 (facilitating connectivity between the Yellowstone grizzlies and other ecosystems is a "significant issue" and "important recovery objective"); FWS-Del-Em-00127058.

Response: Partially disputed. Although connectivity between the Yellowstone population and other populations is desirable, it is not necessary for a population to be recovered. Nevertheless, the 2016 Conservation Strategy commits to encouraging natural connectivity between the Greater Yellowstone Ecosystem and other ecosystems. *See* FWS_LIT_017036-37; 017066-68. Moreover, the first email cited by Plaintiffs is referring to all of the grizzly ecosystems and provides that "[r]ecovery also requires facilitating eventual linkage between the existing recovery zones and with adjacent grizzly populations in Canada…." FWS_DEL_EM_00119567.

78. Klamath (2015) and Miller and Waits (2003) found that the isolated grizzly population in the Yellowstone region would benefit from restoration of gene flow. FWS-LIT-005979; FWS-LIT-009423. The lack of connectivity between grizzly populations was

identified as a threat in the 1975 listing rule, 40 Fed. Reg. at 31,734 (FWS-LIT-018564), and was an original recovery objective. FWS-LIT-014362; FWS-Del-Em-00127058; FWS-LIT-014565–66.

Response: Undisputed, but FWS provides clarification regarding Plaintiffs' first sentence. Kamath (2015) states in full: "Our results suggest that the Yellowstone grizzly bear population has increased substantially over the past three decades, supporting demographic evidence that conservation measures implemented under the ESA have thus far aided the recovery of this population. Specifically, our findings suggest that genetic diversity has shown no decline in recent decades, and contemporary [effective population size] substantially exceeds the inbreeding avoidance goal…[O]ur study suggests that current effective population sizes are sufficiently large…to avoid substantial accumulation of inbreeding depressing, reducing concerns regarding genetic factors affecting the viability of Yellowstone grizzly bears. Nonetheless, the historically small [effective population size], relatively low diversity and isolation over many generations suggest the grizzly population could benefit from increased fitness following the restoration of gene flow…." FWS_LIT_005979. Moreover,

although connectivity between the Yellowstone population and other populations is desirable, it is not necessary for a population to be recovered. Finally, Miller and Waits (2003) is based on outdated information.

79. Chris Servheen, the Service's former grizzly bear recovery coordinator, stated that "all Literature dealing with isolated populations of any animal and all papers dealing specifically with Yellowstone genetics state that linkage is important." FWS-Del-Em-00119586. Servheen (2001) states that "[I]f carnivores such as grizzly bears . . . are to survive and recover to healthy population levels in the Rocky Mountains, the issue of fragmentation must be addressed in a proactive and effective manner." FWS-LIT-029438.

Response: Undisputed that FWS employee cited made the quoted statements. However, these statements reflect the preliminary views of one Service employee. FWS's consideration of the best available science is reflected in the 2017 Rule. Moreover, the 2016 Conservation Strategy and the 2017 Rule address the issue of supporting natural connectivity in the future. Finally, the 2001 study cited in the second sentence is outdated.

80. Proctor (2012) states that "[w]ithout female connectivity, small populations are not viable over the long-term." FWS-LIT-01061.

Response: Partially disputed. The correct citation is to FWS_LIT_010611. Moreover, the cited statement is taken out of context. The "small populations" does not refer to the Yellowstone population, but rather the Purcell, Yaak, Cabinet, and Selkirk Mountains populations. FWS_LIT_010634-35, 010640.

81. To manage for connectivity, the Service originally insisted the states commit to no-hunting zones between the Yellowstone region and other subpopulations, including the Northern Continental Divide Ecosystem (portions of the Highlands, Tobacco Roots, and areas east of Deerlodge (Nevada and Boulder Mountains)) as a condition for delisting. FWS-Del- Em-00151751; FWS-Del-Em-0014420; FWS-Del-Em-00153335; FWS-Del-Em-00144562; FWS-Emails-059386; FWS-Emails- 059449. The Service considered providing for connectivity to be a significant and "MAJOR issue," FWS-Del-Em-00144562, and critical to FWS's "recovery" finding. FWS-Emails-059449.

Response: Partially disputed. Again, many of these statements reflect the views of one Service employee. FWS's consideration of the best available science is reflected in the 2017 Rule. At bottom, FWS did not "insist" on states committing to no-hunting zones. Rather, FWS explored that possibility. For example, Plaintiffs cite an email that states that FWS "is in discussions with the states of Montana and Idaho about not allowing grizzly hunting in important connector areas between the Yellowstone and populations to the north." FWS_Del_EM_00153335. Another email describes no-hunting zones as "[o]ne way to achieve [the objective of male movement between the NCDE and Yellowstone]." FWS_Emails_059449. Moreover, the grizzly bear management plan for southwestern Montana says it will manage discretionary mortality in areas between the [Greater Yellowstone Ecosystem] and the NCDE to provide the opportunity for natural connectivity. 82 Fed. Reg. at 30534; FWS_LIT_033317. Montana's grizzly bear hunting regulations also have a closed hunt unit in the northwest corner to allow for connectivity. FWS_LIT_009400-01.

82. However, the states refused and connectivity has yet to be restored. FWS-Del-Em-00144669. The states said any declaration of "no hunting zones" as part of delisting is "unacceptable" to Idaho, Montana, and Wyoming. *Id.*; FWS-Del- Em-00122644 (Montana's refusal to close hunting in important linkage area); FWS-Emails-016328 (Wyoming noting that addressing connectivity issues could result in "political consequences"); FWS-Emails-00917 (describing states' refusal to properly manage for connectivity assurances).

Response: Partially disputed. The States were opposed to "no hunting zones"; however, Montana stated that as they "move into management of recovered grizzly bears in the GYA and NCDE, [it] may address [the issue of connectivity] through ongoing management planning." FWS_DEL_EM_00144669. "Connectivity between the [Greater Yellowstone Ecosystem] and the NCDE is a long-term goal for the State of Montana, as set out in their Grizzly Bear Management Plan for Southwestern Montana." FWS_Emails_000917. Moreover, as noted in response to paragraph 81, Montana's grizzly bear hunting regulations also have a closed hunt unit in the northwest corner to allow for connectivity. FWS_LIT_009400-01.

83. The Service concedes that much needed linkage or connectivity of grizzly subpopulations has yet to be established. 82 Fed. Reg. at 30,517; 82 Fed. Reg. at 30,579.

Response: Disputed that FWS "concedes" that linkage or connectivity is "much needed." Plaintiffs first cite part of the distinct population segment analysis of the Greater Yellowstone Ecosystem. FWS addresses connectivity on that page to a limited degree, stating that no grizzly bears from the Greater Yellowstone Ecosystem have been suspected or confirmed beyond the borders of the Greater Yellowstone Ecosystem and no grizzly bears originating from another ecosystem have been detected inside the Greater Yellowstone Ecosystem. 82 Fed. Reg. at 30517. On the second page cited, FWS states that the agency is "encouraged by the expansion of grizzly bears into the area between NCDE and the [Greater Yellowstone Ecosystem]," though connectivity between the two ecosystems has not yet been documented. 82 Fed. Reg. at 30579.

Loss of important food sources

84. Grizzly bears in the Yellowstone region have a unique diet that differs from other populations in the contiguous United States.

FWS-LIT-016075; 81 Fed. Reg. at 13,178. The grizzly bear's diet in the Yellowstone region is "unusual and unique" because the bears have greater access to large bodied ungulates (e.g., bison, deer, elk, and moose) and less access to fall berries than other populations. FWS-LIT-016075.

Response: Partially disputed in that grizzly bears in the Greater Yellowstone Ecosystem "commonly consume ungulates (bison (Bison bison), elk (Cervus Canadensis), moose (Alces alces), and deer (Odocoileus species)), cutthroat trout (Oncorhynchus clarki), roots and tubers, army cutworm moths (Euxoa auxiliaris), grasses, and whitebark pine seeds (Pinus albicaulis)." 81 Fed. Reg. at 13178.

85. Grizzly bears in the Yellowstone region are the only bears in the contiguous United States that prey on bison and rely on whitebark pine seeds. FWS-LIT-016075.

Response: Partially disputed. Grizzly bears do not "rely on" whitebark pine seeds. The 2011 five-year review says that "grizzlies in the [Greater Yellowstone Ecosystem] rely on terrestrial mammals as their primary sources of nutrition…." FWS_LIT_016075. The five-year review also noted that the Greater Yellowstone Ecosystem

grizzly bears were in a unique ecological setting because they use whitebark pine as a major food source. FWS_LIT_016075. However, the 2017 Rule explains that the use of whitebark pine has declined, but this decline has not affected the viability of the Greater Yellowstone Ecosystem population. 82 Fed. Reg. at 30518, 30537-38.

86. The four most important food sources for grizzly bears in the Yellowstone region are: meat from ungulates (bison, elk, deer, and moose), whitebark pine seeds, army cutworm moths, and cutthroat trout. 81 Fed. Reg. 13,178; FWS-LIT-019231; FWS- LIT-016075; FWS-LIT-016303.

Response: Undisputed that grizzly bears in the Greater Yellowstone Ecosystem eat these food sources, but dispute that they are the "four most important food sources" for grizzly bears. Although this population eats over 266 distinct plant and animal species, monitoring efforts have focused on the four food sources cited by Plaintiffs because they have relatively high energetic value and the consumption of these sources by bears is relatively easy to measure. 82 Fed. Reg. at 30536. Plaintiffs cite the 2016 draft rule, which states that "[n]early one third of grizzly bear home ranges in the

[Greater Yellowstone Ecosystem] do not contain any whitebark pine…Bears in these areas consume other foods even during years of good whitebark pine production." 81 Fed. Reg. at 13178 (citations omitted). In addition, whitebark pine is a masting species, producing large seed crops in some years and poor seed crops in other years. The Greater Yellowstone Ecosystem grizzly bear population has always had to rely on alternative food sources in poor seed crop years. 82 Fed. Reg. at 30537-39.

87. Grizzly bears in the Yellowstone region rely heavily on meat from ungulates for their diet. 81 Fed. Reg. 13,178; FWS-LIT-019231; FWS-LIT-016353. Grizzly bears in the Yellowstone region consume winter-killed elk, deer, and bison in the early spring as carrion. FWS-LIT-016353. Grizzly bears also kill elk, deer, and bison calves opportunistically, consume hunter-killed carcasses or gut piles, and prey upon adults weakened during the fall breeding season. FWS-LIT-016353. Elk and deer numbers in the Yellowstone region are in decline. FWS-Emails-061496; FWS- Emails-033882. The grizzly bear's reliance on ungulate populations in the Yellowstone region faces uncertainties due to brucellosis (and

resulting management practices), chronic wasting disease, competition from other top predators, and decreasing winter severity, which decreases the availability of spring carrion. 82 Fed. Reg. at 30,536–37.

Response: Disputed. Grizzly bears do not rely "heavily" on meat. Meat accounts for around 44% of the Greater Yellowstone Ecosystem grizzly bear diet, which is similar to the NCDE where they eat approximately 38% and 56% for females and males, respectively. FWS_LIT_016353; 82 Fed. Reg. at 30518. The source cited by Plaintiffs actually states that "[p]rotein and fat from ungulate carcasses ranks as the second-highest food source of gross caloric value available to grizzly bears in the [Greater Yellowstone Ecosystem]…Winter-killed ungulates, primarily elk and bison, provide an important source of protein to bears, especially during early spring before most plant food become available. As an alternative to carcasses as a spring food, grizzly bears also consume earthworms, ants, and pocket gophers. Grizzly bears continue to opportunistically forage for animal matter and scavenge carrion throughout the active season and will seek out gut piles and other

remains left by ungulate hunters in the fall." FWS_LIT_016353 (citations omitted). FWS disputes much of Plaintiffs' final sentence. The 2017 Rule acknowledged that ungulate populations are threatened by brucellosis, but determined that brucellosis "does not affect bison as a food source for grizzly bears." 82 Fed. Reg. at 30537. FWS also noted that chronic wasting disease is "fatal to deer and elk but has not been detected in the [Greater Yellowstone Ecosystem], and, as transmission is density-dependent…, [the disease] would not result in local extinction of deer or elk populations." *Id.* (citation omitted). FWS finally noted that neither of these diseases is likely to impact availability of ungulate carcasses such that the diseases are a threat to the Greater Yellowstone Ecosystem grizzly bear population. *Id.* FWS also concluded that any reduction of winter-killed ungulates as a result of decreasing winter severity "may be buffered by an increase of availability of meat to adult grizzly bears during the active season as a result of grizzly bears usually prevailing in usurping wolf-killed ungulate carcasses…Therefore, fluctuations in the availability of ungulates are not a threat to the [Greater

Yellowstone Ecosystem] grizzly bear population now or in [the] foreseeable future." *Id.*

88. Grizzly bears in the Yellowstone region rely on whitebark pine seeds and army cutworm moths, which provide an important source of fat and protein. 81 Fed. Reg. at 13,178; FWS- LIT-016355; FWS-LIT-016356.

Response: Partially disputed. As an initial matter, the "ability to use whatever food resources are available is one reason grizzly bears are the most widely distributed bear species in the world." 81 Fed. Reg. at 13177-78. "They opportunistically seek and consume whatever plant and animal foods are available to them." *Id.* at 13178. Thus, grizzly bears are not reliant on any particular food source. Plaintiffs again cite the 2016 draft rule, which states that "[d]ue to their high fat content, whitebark pine seeds can be an important fall food for bears in the [Greater Yellowstone Ecosystem] when they are available." 81 Fed. Reg. at 13178 (emphasis added). The draft rule goes on to state that "[n]early one third of grizzly bear home ranges in the [Greater Yellowstone Ecosystem] do not contain any whitebark pine. Bears in these areas consume other foods even

during years of good whitebark pine production." 81 Fed. Reg. at 13178 (citation omitted). Regarding army cutworm moths, the final draft of the 2016 Conservation Strategy provides that, "[w]hen available, moths are a valuable source of nutrition for grizzly bears because they have the highest reported gross caloric content per gram of any food available to grizzly bears in the [Greater Yellowstone Ecosystem]." FWS_LIT_016355.

89. Whitebark pine seeds are an important food source for grizzly bears in the Yellowstone region. 81 Fed. Reg. 13,178; FWS-LIT-019231; FWS-LIT-016356. Grizzly bears consume whitebark pine seeds because of their high fat content. *Id*. Grizzly bears that have whitebark pine seeds in their home range may feed predominantly on the seeds when production levels are high (exceeding 20 cones per tree). *Id*. Approximately two-thirds of grizzly bear home ranges in the Yellowstone region contain whitebark pine seeds. *Id*. During years of high seed production, white bark pine seeds can make up as much as 51 percent of a grizzly's source of protein. FWS-LIT-016075. The species of pine is currently warranted for listing under the ESA due to high levels of mortality from white

pine blister rust, mountain pine beetle, and "less obvious impacts from climate change and fire suppression." 82 Fed. Reg. at 30,537. In years of poor whitebark pine seed production, grizzly bears shift their diets to consume more meat. *Id.* at 30,538 (citing Schwartz (2014)).

Response: Partially disputed. Plaintiffs again cite the 2016 draft rule, which states that "[d]ue to their high fat content, whitebark pine seeds can be an important fall food for bears in the [Greater Yellowstone Ecosystem] when they are available." 81 Fed. Reg. at 13178 (emphasis added). The draft rule goes on to state that "[n]early one third of grizzly bear home ranges in the [Greater Yellowstone Ecosystem] do not contain any whitebark pine…Bears in these areas consume other foods even during years of good whitebark pine production." *Id.* (citation omitted).

90. Whitebark pine trees are declining in numbers in the Yellowstone region. FWS-LIT-016358. More than 70 percent of whitebark pine trees are now dead or dying in the Yellowstone region due to mountain pine beetles, white pine blister rust, and other impacts related to climate change. 76 Fed. Reg. 42,631, 42,635

(July 19, 2011) (Service determination that listing whitebark pine as threatened or endangered under the ESA is "warranted but precluded"); FWS-LIT-018858.

Response: Disputed. Approximately 75% of mature, cone-producing whitebark pine trees experienced mortality since 2002, but mortality is lower in younger age classes and recruitment is healthy. Mortality of whitebark pine peaked around 2009 and survival levels have been relatively stable since then. 82 Fed. Reg. at 30616-17.

91. The availability of whitebark pine seeds can influence the reproductive and survival rates of grizzly bears on an annual basis. FWS-Emails-033883. There is an increased risk of human- caused grizzly bear mortality during years of low whitebark pine availability because grizzlies are forced to disperse to seek additional food sources. FWS-LIT-016356; FWS-Emails-033883. During periods of low whitebark pine availability, grizzly bears in the Yellowstone region rely more heavily on other food sources, including meat. FWS-LIT-016356; FWS-Emails-033883.

Response: Partially disputed. "[T]he overall fecundity rates during the last decade (2002-2011) did not decline when compared with data

from 1983-2001. (IGBST 2013, p. 32). This is important because fecundity rates are a function of both litter size and the likelihood of producing a litter, the two ways in which whitebark pine seed production may affect reproduction." 81 Fed. Reg. at 13214. The email cited by Plaintiffs also states that the "IGBC (2013:35) concluded that the decline in whitebark pine seeds 'has had no profound negative effects on grizzly bears at the individual or population level.'" FWS_Emails_033882. Moreover, there is no evidence that grizzly bears have dispersed (i.e., increased home range size) in response to declines in whitebark pine. Home range sizes have stayed the same (for males) or decreased (for females), 82 Fed. Reg. at 30507, and movement rates during the fall, when whitebark pine is available, have not changed, suggesting that grizzly bears are finding alternate foods within their home range, 82 Fed. Reg. at 30538.

92. Grizzly bears in the Yellowstone region rely on cutthroat trout for their diet. 81 Fed. Reg. 13,178; FWS-LIT- 019231; FWS-LIT-016354. Cutthroat trout are an important food source for grizzly bears in the Yellowstone region. FWS-LIT- 016354. The cutthroat

trout population in the Yellowstone region is in decline due to the introduction of nonnative lake trout, a parasite that causes whirling disease, and several years of drought conditions in the region. *Id.*; 82 Fed. Reg. at 30,537.

Response: Partially disputed. Again, the "ability to use whatever food sources are available is one reason grizzly bears are the most widely distributed bear species in the world." 81 Fed. Reg. at 13177-78. "They opportunistically seek and consume whatever plant and animal foods are available to them." *Id.* at 13178. "Grizzly bears are always sampling new foods so that they have alternative options in years when preferred foods are scarce." *Id.* Thus, grizzly bears do not "rely" on any particular food source. Grizzly bears in the Greater Yellowstone Ecosystem do commonly consume cutthroat trout among other food sources. 81 Fed. Reg. at 13178. In addition, the decline of cutthroat trout peaked in the early 2000s, and only a small proportion of the Greater Yellowstone Ecosystem grizzly bear population used the resource before its decline. The Greater Yellowstone Ecosystem grizzly bear population increased over the past 10+ years despite the loss of this food resource. 82 Fed. Reg. at

30537, 30540, 30615. Finally, recent surveys show that the ongoing effort to control lake trout in Yellowstone lake has led to increases in cutthroat trout spawning numbers in some tributary streams. 82 Fed. Reg. at 30615.

93. Army cutworm moths are an important food source for grizzly bears in the Yellowstone region. FWS-LIT-016355; FWS- LIT-003632. Army cutworm moths aggregate on remote, high elevation talus slopes in the Absaroka Mountains, just east of Yellowstone National Park. FWS-LIT-016355; FWS-LIT-003623. Grizzly bears forage for army cutworm moths on these slopes from mid to late summer. FWS-LIT-016355; FWS-LIT-003626-27. Grizzly bears are known to congregate at these army cutworm moth sites from mid to late summer to forage for moths. FWS-LIT-016355; FWS-LIT-003626–27; FWS-Del-Em-162207 (photos of grizzlies congregating at moth sites).

Response: Partially disputed. "When available, moths are a valuable source of nutrition for grizzly bears." FWS_LIT_016355. Moreover, army cutworm moths are only available within the home

ranges of a portion of the Greater Yellowstone Ecosystem grizzly bear population. 82 Fed. Reg. at 30519; FWS_LIT_004493.

94. The majority of the army cutworm moth sites are located outside Yellowstone National Park. FWS-Del-Em-162167 (map). Some of the army cutworm moth sites are located outside the Primary Conservation Area ("conservation area"). *Id.; see also* FWS-LIT-027401, FWS-LIT-003623.

Response: Undisputed.

95. Climate change may adversely impact army cutworm moths by changing the distribution of plants that the moths feed on or the flowering times of the plants. FWS-LIT-016355.

Response: Partially disputed. The cited page states that "size, location and moth abundance of sites fluctuate from year to year due to natural variation in environmental factors, such as snow cover." FWS_LIT_016355. Additionally, as noted in the 2017 Rule, the "[Greater Yellowstone Ecosystem] plant communities have a wide elevational range that would allow for distributional changes…and army cutworm moths display foraging plasticity." 82 Fed. Reg. at 30537.

Increased Reliance on Meat as a Food Source

96. As noted, several traditional food sources for grizzly bears in the Yellowstone region, including whitebark pine seeds and cutthroat trout, have declined in recent years. FWS-Rel-Docs-001473. These declines appear to be long term in nature. *See* FWS-LIT-005749–50; FWS-Rel-Docs-001548 (recognizing chronic nature of declines).

Response: Partially disputed. "Grizzly bears are not dependent upon whitebark pine seeds for survival, nor do they have a diet that is specialized on consumption of these seeds." FWS_Rel_Docs_001473. Moreover, "[g]rizzly bears are resourceful omnivores that will make behavioral adaptations regarding food acquisition." *Id.* "[A]lthough whitebark pine seed production and availability of cutthroat trout in the Yellowstone Lake area varied dramatically over the last 3 decades due to both natural and human-introduced causes…, the [Greater Yellowstone Ecosystem] grizzly bear population has continued to increase and expand during this time despite these changes in foods." *Id.* (citations omitted).

97. As a result of the decline in these foods, Yellowstone region grizzly bears have increasingly relied on meat food sources, including livestock, and offal and carcasses left by hunters. FWS-LIT-005758–59 (2013 Food Synthesis Report, concluding that "animal matter can serve as an alternate fall food to whitebark pine for grizzly bears in the [Yellowstone region]"); FWS-Rel-Docs- 001471 ("[I]n years with poor whitebark pine seed production, grizzly bears shifted their diets and consumed more meat.").

Response: Partially disputed. The Final IGBC Report states that "grizzly bears exhibited diet shifts in response to the natural masting cycle of whitebark pine, substituting animal matter for pine seeds in poor seed years and obtaining fat levels in the alternate diet equal to those in good seed years." FWS_LIT_005758. In other words, grizzly bears have been adjusting their food sources based on availability of certain sources for years. *See* FWS_Rel_Docs_001471 (noting that this shift in diet was consistent with previous findings from a study in 1997).

98. However, while livestock and carcasses left by hunters may be adequate for bears' nutritional requirements, bears relying

on these food sources risk more deadly conflicts with humans than bears relying on other food sources, such as whitebark pine seeds. Whitebark pine, for example, occurs in remote, high-elevation areas where bears are unlikely to encounter humans. FWS-LIT- 007426 (study noting "whitebark pine's high elevation distribution, typically in areas more remote from human facilities"); FWS-LIT-005743 ("Whitebark pine occupies high- elevation sites"). But bears seeking livestock and offal necessarily venture closer to the hunters and ranchers associated with those food sources. FWS-Pub-Cmt-005973, 005992–93. Thus, as grizzly bears switch to meat in response to a dearth of whitebark pine seeds and other foods, they increasingly come into conflict with hunters and ranchers — conflict that often proves fatal to bears. FWS-Rel-Docs-001470 (noting that additional deaths in years with poor whitebark pine production "are primarily due to defense of life encounters and wildlife management agency removals of conflict bears").

Response: Undisputed that the sources cited make these assertions. However, as the 2017 Rule stated: "FWS acknowledges this component of the threat from whitebark pine loss, but despite increased mortality

during poor whitebark pine cone production years, the population trend has maintained a relatively flat trajectory (IGBST 2012, p.34; Van Manen 2016a; in litt.)." 82 Fed. Reg. at 30540.

99. The switch to meat further poses unique threats to bear cubs. As one of the Service's peer reviewers wrote after reviewing the proposed rule: "More meat consumption by adult females with cubs in replace of whitebark pine seeds could be a [population] sink if accessing these resources results in additional cub mortalities during confrontations with other predators or adult male grizzly bears." FWS-Emails-027035. Indeed, the Service has found that cub and yearling survival has decreased significantly in recent years, "caus[ing] the slowing of population growth since the early 2000s." FWS-Rel-Docs-001544.

Response: Undisputed that those statements come from the documents cited. However, FWS disputes Plaintiffs' implication that decreased cub and yearling survival is connected to grizzly bears' consumption of meat when whitebark pine is not available. The 2017 Rule states in full: "The vital rates that showed the greatest change, and caused the slowing of population growth since the early 2000s,

are lower cub and yearling survival (*i.e.,* lower recruitment into the population). The IGBST investigated if the decline in cub and yearling survival could be a function of decline in food resources (whitebark pine) or whether associated with grizzly bear density. Survival of cubs-of-the-year was lower in areas with higher grizzly bear densities but showed no association with estimates of decline in whitebark pine tree cover, suggesting that grizzly bear density contributed to the slowing of population growth." 82 Fed. Reg. at 30611 (emphasis added).

100. As a result of the switch to meat, grizzly bear conflict mortality has climbed to unprecedented levels in recent years. Forty-five bears died due to human conflicts in 2015 alone, up from sixteen such deaths in 2014; thirty-five died due to conflicts in 2016. FWS-LIT-022907 (2015 annual report); FWS-LIT-023609 (2016 annual report); FWS-LIT-023478 (2014 annual report).

Response: Disputed. As an initial matter, it is unclear what Plaintiffs are including in their counts of human conflict mortalities. The 2014 annual report states that there were 14 human-caused mortalities in the DMA during 2014. FWS_LIT_023478. In 2015,

there were a reported 43 human-caused mortalities in the DMA. FWS_LIT_023609. But, in 2016, there were 31 human-caused mortalities in the DMA. FWS_LIT_023615. Moreover, in 2012, there were 26 human-caused mortalities in the DMA. FWS_LIT_023373. In 2013, there were 17 human-caused mortalities in the DMA. FWS_LIT_022524. Thus, human-caused mortality fluctuates from year to year. As the population growth rate stabilizes to increases in the DMA, the number of bear mortalities would be expected to increase as some bears shift outside suitable habitat. 82 Fed. Reg. at 30513, 30568.

101. The majority of these deaths occurred because bears were depredating livestock or encountering hunters — in 2015, thirteen bears were taken because they were depredating livestock, including one cub that was killed accidentally after its mother was captured at a "cattle depredation trap site," while fourteen were taken by hunters claiming self-defense. FWS-LIT- 022907. The remaining sixteen bears were killed because they were involved in "site conflicts;" in most cases, such site conflicts involved bears seeking and obtaining human food. FWS-LIT- 022909–14 (Table 16,

describing multiple bears killed because they had caused property damage and obtained "food rewards").

Response: Disputed. The source reports that there were 15 not 13 livestock-related takes.

102. The 2016 statistics are similar — fifteen bears were taken by wildlife managers due to livestock depredations, seven were taken by hunters claiming self-defense, and thirteen were killed due to site conflicts. FWS-LIT-023609 (2016 annual report).

Response: Undisputed.

103. In FWS's June 30, 2017 final rule, FWS failed to account for the emerging threat to grizzly bears posed by the dietary shift to meat, despite comments from scientists raising this precise issue during the public comment period. FWS-Pub- Cmt-005991–93 (Letter from David J. Mattson, Ph.D.); FWS- Emails-027035 (peer reviewer raising concern that greater meat consumption among females with cubs will expose cubs to predation).

Response: Disputed. FWS addressed these opinions in its response to Issues 103 and 104. 82 Fed. Reg. at 30618. There is no scientific evidence that this amounts to a threat for the grizzly bear.

104. In the final rule, the Service admitted that "[d]uring years of low availability of whitebark pine seeds, grizzly bear- human conflicts tend to increase," that these conflicts lead to additional deaths, and the deaths "are primarily due to defense of life encounters and wildlife management agency removals of conflict bears." FWS-Rel-Docs-001470. But the Service failed to recognize or consider the logical connection between the switch to meat and the greater numbers of conflict deaths. *See id.*

Response: Disputed. As the 2017 Rule notes, the "comment about potential future impacts of higher human-caused mortality to grizzly bears in years of low whitebark pine production has received much attention but is misleading." 82 Fed. Reg. at 30617. Based on the best available science, FWS determined that, although bears shifted to lower elevations in years of whitebark pine production, "this elevation shift did not itself predispose bears to increased mortality." *Id.* Instead, they found that bears shifting to nonsecure habitat—or habitat that had been altered by humans—were exposed to more risk, whereas those bears shifting to lower elevations in secure habitat were not subject to increased risk. *Id.*

105. The Service's analysis of increased bear mortality in poor whitebark pine years acknowledged that "[a]pproximately six more independent females and six more independent males die across the ecosystem in poor versus good whitebark pine years." FWS-Rel-Docs-001470. That analysis, however, was based on a 2013 study evaluating data from 2000-2012, before the recent spike in conflicts and conflict mortality, and therefore does not accurately gauge the emerging threat of bear-human conflicts. *See* FWS-LIT-005761–62 (2013 Food Synthesis Report, cited in the final rule); FWS-Rel-Docs-001470. The Service never revisited the conclusions of its 2013 study in light of recent data indicating a new, upward trend in conflict mortality. *See* FWS-Rel-Docs- 001470.

Response: Disputed. Based on the best available science and as discussed in response to paragraph 100, the data does not indicate a "new, upward trend in conflict mortality." Conflict mortality depends in part on the cycle and availability of natural food sources. In years with ample food sources, there is lower conflict mortality. Another factor is the size of the population. As the population increases and the distribution expands, mortalities increase accordingly.

High levels of "background" mortality

106. In the Yellowstone region, grizzly bear mortalities occur every year due to multiple sources, including management removals to protect livestock interests, illegal poaching, self- defense, natural mortalities, and other causes such as vehicle collisions. 81 Fed. Reg. at 13,203. On average, approximately 37 grizzlies (15 females and 22 males) are killed every year due to "background" mortality. *Id*.

Response: Partially disputed. FWS adds that once the mortality limits for either females or males is met in any year, the state regulatory mechanisms closing hunting seasons would apply. 81 Fed. Reg. at 13203.

107. The majority of these mortalities are human-caused. 82 Fed. Reg. at 30,527–28. From 1980 to 2002, 66 percent of the 290 known grizzly bear mortalities were human-caused, primarily from confrontations with hunters, illegal poaching, defense of life or property, accidental mortality from research efforts, or management removals to protect livestock. *Id.* From 2002 to 2014, 76 percent of the 410 known grizzly bear mortalities were human- caused and FWS is seeing an increase in the number of female grizzlies killed each year.

81 Fed. Reg. at 13, 205; FWS-LIT- 017029 (map depicting location of all known mortalities from 1975-2014).

Response: Partially disputed. The 2016 draft rule cited by Plaintiffs states: "While the number of independent female grizzly bears killed by humans each year has increased gradually, human-caused mortality occurring in the fall, when bears are at an increased risk of conflicts involving hunters, as a proportion of the estimated population size has remained relatively constant, particularly for females." 81 Fed. Reg. at 13205.

108. The preamble to the Service's rule designating and delisting a Yellowstone grizzly segment excludes the extremely high levels of mortality from 2015 and 2016. *See* 82 Fed. Reg. at 30,502.

Response: Disputed. FWS addressed the 2015 and 2016 mortalities in the 2017 Rule in response to Issue 35. 82 Fed. Reg. at 30568-69.

109. The primary factor affecting grizzly bears at both the individual and population level is excessive human-caused mortality. 81 Fed. Reg. 13,178; FWS-LIT-019231.

Response: Undisputed.

110. Grizzly bears in the Yellowstone region are experiencing abnormally high human-caused mortality levels. 82 Fed. Reg. 30,527; FWS-Emails-058290. Since 2015, at least 175 bears have been killed in the Yellowstone region (including 56 dead grizzly bears in 2017 (U.S. Geological Survey, 2017 Known and Probably Grizzly Bear Mortalities in the Greater Yellowstone Ecosystem, https://www.usgs.gov/data-tools/2017-known-and-probable-grizzly-bear-mortaLITies-greater-yellowstone-ecosystem (last visited May 9, 2018)), 58 dead bears in 2016 (FWS-LIT-023609), and 61 dead grizzlies in 2015 (FWS-LIT-023255)). Of these, 145 were human-caused mortalities, and 27 deaths are either undetermined or remain under investigation. *Id.;* FWS-LIT- 023609; FWS-LIT-023255.

Response: Disputed. Plaintiffs' first assertion is unsupported by the 2017 Rule or cited email. Once again, as the number of bears increases due to recovery and their distribution expands into unsuitable habitat, the number of mortalities outside the DMA are expected to increase. FWS_LIT_017027 ("Higher numbers of mortalities can be expected in areas outside the DMA as the grizzly bear population expands, particularly in areas on the edge of the

range when bears move on to private lands or in areas with higher levels of development.").

Loss of habitat

111. Grizzly bears use a variety of habitats in the Yellowstone region. 82 Fed. Reg. 30,505. A grizzly bear's habitat needs are generally driven by the search for food, mates, cover, security, or den sites. 82 Fed. Reg. 30,505.

Response: Undisputed.

112. There are a number of activities occurring in occupied and suitable grizzly bear habitat in the Yellowstone region that have the potential to adversely affect grizzlies. 82 Fed. Reg. at 30,526–27. This includes mineral and energy development, recreation (including motorized access), livestock grazing, logging, habitat fragmentation, and development. *Id*. at 30,520–27.

Response: Undisputed.

113. Human activities are the primary factor impacting habitat security and the ability of bears to find access to food, mates, cover, and den sites. 82 Fed. Reg. 30,505. The most effective habitat

management tool for reducing grizzly bear mortality is limiting human access to occupied grizzly bear habitat. 81 Fed. Reg. 13,178; FWS-LIT-019231.

Response: Partially disputed. Limiting human access is not always practical and there are effective management tools to reduce grizzly bear mortality discussed in the 2016 Conservation Strategy. *See* FWS_LIT_017070-79.

Climate change

114. The best available science reveals the effects related to climate change may result in a number of changes to grizzly bear habitat in the Yellowstone region, including reduction of snowpack levels, shifts in denning times, shifts in the abundance of and distribution of important food sources, and changes in fire regimes. 82 Fed. Reg. at 30,541; FWS-LIT-016158. For example, climate change may adversely impact army cutworm moths by changing the distribution of plants that the moths feed on or the flowering times of the plants. FWS-LIT-016355. The ecological changes resulting from climate impacts may also affect the "timing and frequency of grizzly bear-human conflicts." 82 Fed. Reg. at 30,541; FWS-LIT-016158.

Response: Partially disputed. As noted in the 2017 Rule, "[m]ost grizzly bear biologists in the United States and Canada do not expect habitat changes predicted under climate change scenarios to directly threaten grizzly bears…These effects may even make habitat more suitable and food sources more abundant." 82 Fed. Reg. at 30541. Additionally, FWS_LIT_016355 states: "However, size, location and moth abundance of sites fluctuate from year to year due to natural variation in environmental factors, such as snow cover." The document refers to natural variation. Climate change may add additional variation.

Recreational trophy hunting

115. The states of Montana, Wyoming, and Idaho now assume primary regulatory authority over the management of the Yellowstone grizzly segment. 82 Fed. Reg. at 30,628. Grizzly bears inside the segment boundary are now classified as a "game" species. 82 Fed. Reg. 30,528.

Response: Partially disputed. Grizzly bears are classified as a game species "throughout the [Greater Yellowstone Ecosystem] distinct population segment boundaries outside National Parks and the [Wind

River Reservation] in the States of Wyoming, Montana, and Idaho." 82 Fed. Reg. at 30530.

116. Grizzly bears that travel inside or remain inside the Yellowstone grizzly segment boundary may now be subject to recreational hunting, as authorized by the states of Montana, Wyoming, and Idaho. 82 Fed. Reg. 30,528. Recreational hunting of grizzlies in the Yellowstone region will increase mortality levels above and beyond the already high "background" levels. 81 Fed. Reg. at 13,203 (calculating number of additional mortalities allowed for trophy hunters).

Response: Partially disputed. Private citizens may hunt grizzly bears in the Greater Yellowstone Ecosystem if the background mortality rate is under the allowable limit, if any hunting quota has not been met, and if they have a hunting license issued by State or Tribal wildlife agencies, following guidance in the Tri-State Memorandum of Agreement. 82 Fed. Reg. at 30528.

117. The Service's June 30, 2017 final rule does not restrict where the states of Montana, Wyoming, and Idaho may allow recreational hunting of grizzly bears outside of National Parks. 82

Fed. Reg. 30,531 and 30,533. Recreational hunting may be allowed on lands immediately adjacent to Yellowstone and Grand Teton National Parks. 82 Fed. Reg. 30,531 and 30,533. There will be no buffers to protect bears near the boundaries of Yellowstone National Park and the majority of Grand Teton National Park. The National Park Service raised concerns about hunting next to our National Parks. FWS-Pub-Cmt-004143. Historic data reveals the National Park Service's concerns were justified because hunting routinely occurred immediately adjacent to Yellowstone National Park, pre-listing. FWS-Del-Em-87913; FWS-Del-Em- 87914 (explaining why the National Park Service is "so concerned" with attached map depicting grizzly mortalities from trophy hunting immediately adjacent to Yellowstone from 1959-1974).

Response: Disputed. Within the DMA, federal, state, and tribal entities "will manage total mortality to ensure all recovery criteria continue to be met." 82 Fed. Reg. at 30531.

118. Recreational trophy hunting of grizzly bears in the Yellowstone region will be allowed in areas where grizzly bears

congregate to consume food sources, including moth sites, carcasses, root fields, and spawning areas. 82 Fed. Reg. 30,531 and 30,533.

Response: Partially disputed. "Where grizzly bears congregate" is ambiguous.

119. Recreational hunting may be allowed in important linkage zones or connectivity areas used by grizzly bears that disperse outside Yellowstone National Park. 82 Fed. Reg. 30,531 and 30,533. The Service acknowledged that Montana would need to limit discretionary hunting mortality in at least the connection areas between the Northern Continental Divide and Greater Yellowstone Ecosystems in the Tobacco Root and Highland Mountains, FWS-Del-Doc-009494, but Montana refused to commit to this, FWS-Del-Em-0122523.

Response: Partially disputed. The view of FWS is not reflected in a slide prepared by one Service employee. Connectivity is not a recovery criteria; however, as noted before, it is desirable and the 2016 Conservation Strategy addresses encouraging natural connectivity between the Yellowstone and other ecosystems. FWS_LIT_017036, 017066-68.

120. Wyoming will allow the use of "baiting" to kill grizzlies inside the Yellowstone grizzly segment boundary. *See* Wyoming Game & Fish Dep't, Chapter 68, Grizzly Bear Hunting Seasons (signed May 23, 2018) *available at* https://wgfd.wyo.gov/WGFD/media/content/May-CH-68_Final-Website.pdf (last visited June 10, 2018).

Response: Disputed. Plaintiffs' reliance on extra-record information is improper. Moreover, a baiting authorization permit "authorizes the use of bait for taking a grizzly bear if the Department determines it is necessary to meet management objectives, prevent grizzly bear depredation or prevent grizzly bear/human conflicts." https://wgfd.wyo.gov/WGFD/media/content/REGULATIONS_CH68.pdf (last visited July 9, 2018).

121. The grizzly bear mortality limits included in the 2016 Conservation Strategy have limited applicability — they do not apply to recreational trophy hunting and other forms of grizzly mortality outside the demographic monitoring area ("monitoring area"). 82 Fed. Reg. at 30,632 (defining term); *id.* at 30,533 (explaining the mortality limits do not apply outside monitoring area); FWS-LIT-017017–20;

FWS-Del-Em-0087802. The periphery of the monitoring area and areas outside the monitoring area are places where grizzlies are showing up in greater numbers, which is needed for dispersal. As explained by the Service, there "are increasing numbers of bears now outside the [monitoring area] as bears increase on the periphery of suitable habitat." FWS-Del-Em- 00150604; *see also* FWS-Del-Em-0087795 (map showing grizzly distribution beyond monitoring area); FWS-LIT-017026, 017029 (maps showing grizzlies and grizzly mortalities outside the monitoring area). All grizzly mortalities outside the monitoring area — including mortalities of females and dependent young, mortalities from trophy hunting, and background mortalities — are "excluded from consideration." 82 Fed. Reg. at 30,555.

Response: Disputed. FWS clarifies that the "suitable habitat contained within the [monitoring area] is sufficiently large to support a long-term, viable population such that mortalities outside of the [monitoring area] can be excluded from consideration." 82 Fed. Reg. at 30555.

122. At the states' request, FWS shrunk the size of the monitoring area (the area where mortalities are counted) "from 95,225 sq km to 49,431 sq km thereby allowing states to decide how they manage mortality for bears without any limits outside the [monitoring area]." FWS-Del-Em-00122644; *see also comparison of* FWS-Del-Em-145743 (old monitoring area boundary) *with* 82 Fed. Reg. at 30,504 (new monitoring area boundary). The states also persuaded FWS to allow 20 percent of the mortalities allocated to National Park Service lands (which make up 20 percent of the monitoring area) to go to the states for allocation outside of National Park Service lands in the monitoring area. FWS-Del-Em-00122644. Reducing the size of the monitoring area has a significant impact — for example, 12 grizzly bear mortalities in 2014-2015 would not be counted against mortality limits placed on the states based on the reduction. FWS- LIT-016431.

Response: Disputed. 82 Fed. Reg. at 30,504.

123. Montana has announced plans to allow recreational hunting of grizzly bears in the Yellowstone region. FWS-LIT- 019345–48. Wyoming has announced plans to allow recreational hunting of

grizzly bears in the Yellowstone region. FWS-LIT- 016942. Idaho has announced plans to allow recreational hunting of grizzly bears in the Yellowstone region. FWS-LIT-019434–38.

Response: Undisputed.

124. Wyoming has adopted a regulation opening a grizzly bear hunt beginning September 1, 2018. This regulation establishes hunting quotas of 1 female and 10 male bears within the monitoring area, and 12 bears of any sex outside the monitoring area. 40 Wyo. Admin. Rules Ch. 68(6).

Response: Partially disputed. Wyoming's regulation sets a collective female mortality limit within the monitoring zone not to exceed 1 and a male mortality limit not to exceed 10 from September 15-November 15, 2018. Outside this zone, the mortality limit is set at 12 bears from September 1-Novebmer 15. 40 Wyo. Admin. Rule Ch. 68(6).

125. Idaho has adopted a regulation opening a grizzly bear hunt beginning September 1, 2018. *See* https://idfg.idaho.gov/press/fg-commission-approves-grizzly-bear-hunt (last visited June 12, 2018). This regulation establishes a hunting quota of one male bear within the monitoring area. *Id.*

Response: Undisputed.

Cumulative threats

126. During the peer review and comment period, a number of scientific experts noted the need for the Service to adequately consider and address the synergistic threats facing grizzlies in the Yellowstone region. FWS-Pub-Cmt-006108–09; FWS-Pub-Cmt-004193; FWS-Rel-Docs-005204; FWS-Rel-Docs-005206.

Response: Disputed. FWS undertook such an analysis. *See* 82 Fed. Reg. at 30544-45.

127. The Service admits that many "of the threats faced by grizzly bears are interrelated and could be synergistic" and that threats "may cumulatively impact" the Yellowstone grizzly segment. 82 Fed. Reg. at 30,544.

Response: Partially disputed in that the 2017 Rule states that the "principal threats assessed in previous sections may cumulatively impact the [Greater Yellowstone Ecosystem] grizzly bear population beyond the scope of each individual threat." 82 Fed. Reg. at 30544. In

other words, FWS must consider separately how those threats interact together to affect the grizzly bear.

128. Yet, the Service concluded that no cumulative threats exist. 82 Fed. Reg. at 30,544. FWS used population trend data as a metric for assessing cumulative threats. 82 Fed. Reg. at 30,544.

Response: Undisputed that FWS concluded that, given that the "[Greater Yellowstone Ecosystem] grizzly bear population's trend has been relatively constant with no evidence to date of a decline, and range extent has continued to expand," no cumulative threats exist. 82 Fed. Reg. at 30544.

Inadequate Regulatory Mechanisms

129. Simultaneous with the Service's June 30, 2017 final rule, FWS appended Revised Demographic Recovery Criteria and referred to the 2016 Conservation Strategy to provide guidance for post-delisting management of grizzly bears in the Yellowstone region. 82 Fed. Reg. 30,502.

Response: Undisputed.

Revised Recovery Plan Criteria

130. Concurrent with the publication of the Service's delisting rule, the Service revised the demographic recovery criteria from the 1993 recovery plan. 82 Fed. Reg. 502; FWS-LIT- 016422.

Response: Undisputed.

131. Revised demographic recovery criterion number one provides: "Maintain a minimum population size of 500 grizzly bears" and "at least 48 females with cubs-of-the-year within the Demographic Monitoring Area ("[monitoring area]")." FWS-LIT-016423. Revised demographic recovery criterion number two provides: "Sixteen of 18 bear management units within the Recovery Zone . . . must be occupied by females with young, with no 2 adjacent bear management units unoccupied, during a 6-year sum of observations." FWS-LIT-016425. Revised demographic recovery criterion number three provides: "Maintain the population within the [monitoring area] around the 2002-2014 model-averaged Chao2 population estimate (average = 674; 95% [Confidence Interval ("CI")] = 600-747; 90% CI = 612-735) by maintaining annual mortality limits for independent females, independent males, and dependent young." FWS-LIT-016426.

Response: Undisputed.

132. Revised demographic recovery criterion number one was changed to no longer specify which scientific method must be used to assess the criterion. FWS-LIT-016429. As explained by Chris Servheen, the Service's former grizzly bear recovery coordinator, changes to the methods used could potentially allow hundreds of additional bears to be killed even though the on-the- ground population remains unchanged. FWS-Del-Em-00144611 (comment 1). "This is the Chinese menu approach, picking what you want from various options" and "biologically and legally indefensible." *Id.*

Response: Disputed. Plaintiffs cite the opinion of one Service employee. In fact, as explained in the Grizzly Bear Recovery Plan supplement, the current accepted method "used to estimate population size is the model-averaged Chao2 population estimator and this method will continue to be used until another scientifically valid method is developed. [FWS] eliminated the criterion's dependence on a specific method (e.g., Chao2) so that the IGBST can rapidly implement improved scientific methods as they become

available in the peer reviewed literature," rather than having to amend the Recovery Plan once again. FWS_LIT_016429.

133. Revised demographic recovery criterion number three was changed to reflect levels of mortality that will result in maintaining the population around the 2002-2014 population size, rather than applying an approach that would limit mortality to assure the population would be stable to increasing with 95% confidence and only a 5% chance of population decline. FWS-LIT-016430.

Response: Disputed. This approach was taken because "there are several indications the population is at or approaching carrying capacity within the DMA and population growth has slowed…[and FWS found that], managing human-caused mortality at levels that will maintain the population within the DMA at the average size since 2002 is reasonable and biologically sound." FWS_LIT_016430.

The 2016 Conservation Strategy & Tri-State Memorandum of Agreement

134. Prior to the publication of the Service's June 30, 2017 final rule, the Yellowstone Ecosystem Subcommittee of the IGBC

finalized the 2016 Conservation Strategy to guide post-delisting monitoring and management of the grizzly bear in the Yellowstone region. 82 Fed. Reg. 30,502; FWS-LIT-016272.

Response: Undisputed.

135. The 2016 Conservation Strategy identifies a Primary Conservation Area ("conservation area") and adjacent areas where occupancy by grizzly bears is anticipated and acceptable. FWS-LIT-016278. The 2016 Conservation Strategy describes management direction for the conservation area and adjacent areas within the Yellowstone region. FWS-LIT-016278. State grizzly bear management plans, forest plans, and other appropriate planning documents provide management direction for the adjacent areas outside the conservation area. FWS-LIT-016278.

Response: Undisputed.

136. The vision of the 2016 Conservation Strategy provides: "[1] The [conservation area] will be a secure area for grizzly bears, with population and habitat conditions maintained to ensure a recovered population is maintained for the foreseeable future and to allow bears to continue to expand outside the [conservation area][; 2]

Outside the [conservation area], grizzly bears will be allowed to expand into biologically suitable and socially acceptable habitats[; 3] Outside of the [conservation area], the objective is to maintain existing resource management and recreational uses and to allow agencies to respond to demonstrated problems with appropriate management actions[; 4] Outside of the [conservation area], the key to successful management of grizzly bears lies in bears utilizing lands that are not managed solely for bears but in which their needs are considered along with other uses[; 5] Manage the [Yellowstone region] grizzly bear population within the area called the Demographic Monitoring Area ("[monitoring area]"), to ensure a recovered population in accordance with the established Recovery Criteria[; 6] Expand public information and education efforts[; 7] Provide quick responsive management to address grizzly bear conflicts[; and 8] Manage grizzly bears as a game animal; including allowing regulated hunting when and where appropriate." FWS-LIT-016279–80.

Response: Undisputed.

137. State grizzly bear management plans for the States of Montana, Wyoming, and Idaho are formally incorporated into the 2016 Conservation Strategy. FWS-LIT-016280.

Response: Undisputed

138. The 2016 Conservation Strategy states that it is "the goal of the agencies implementing the Conservation Strategy to manage the Yellowstone grizzly bear population within the [monitoring area], to ensure a recovered population in accordance with the established Recovery Criteria." FWS-LIT-016281.

Response: Undisputed.

139. The 2016 Conservation Strategy provides that habitat standards identified in the Conservation Strategy will be maintained at identified levels within the conservation area and that the goal of the habitat management agencies is to maintain or improve habitat conditions existing as of 1998 while maintaining options for management of resource activities at approximately the same level as existed in 1998. FWS-LIT-016282.

Response: Undisputed.

140. The 2016 Conservation Strategy provides that the management of grizzly bear-human conflicts inside the conservation area is based upon the existing laws and authorities of the state wildlife agencies and federal land management agencies and management of conflicts outside the conservation area will be directed by state management plans. FWS-LIT- 016283. The 2016 Conservation Strategy states that, "[i]n circumstances that result in a nuisance bear situation outside the [conservation area], more consideration will be given to existing human uses" than to the grizzly bear and its habitat needs. FWS- LIT-016284. "Past conflict management has demonstrated that grizzly bears can coexist with most human activities." FWS-LIT- 016284.

Response: Undisputed.

141. The 2016 Conservation Strategy is implemented by the Yellowstone Grizzly Bear Coordinating Committee, which replaces the Yellowstone Ecosystem Subcommittee of the IGBC. FWS-LIT- 016285. The Yellowstone Grizzly Bear Coordinating Committee consists of representatives from federal land management agencies, state wildlife

agencies, local government, and tribal representatives. FWS-LIT-016286.

Response: Undisputed.

142. The 2016 Conservation Strategy formally incorporates a Memorandum of Understanding Detailing Agency Agreement to Implement the Conservation Strategy ("Tri-State Memorandum of Agreement") as signed by the federal and state agencies implementing the plan. FWS-LIT-016290–91.

Response: Undisputed.

143. At the same time it published the proposed rule for public comment, the Service also published and solicited public comment on these two related documents pertaining to the regulatory scheme covering Yellowstone region grizzly bears after delisting — the "Draft Conservation Strategy" and the "Draft Tri- State Memorandum of Agreement." 81 Fed. Reg. 13,173 (Mar. 11, 2016) (proposed rule); FWS-LIT-016272 (draft Conservation Strategy); FWS-Rel-Docs-005215 (draft Memorandum of Agreement).

Response: Undisputed.

144. The draft Conservation Strategy was the most recent version of an interagency management plan developed by the Interagency Grizzly Bear Study Team's ("IGBST's") Yellowstone Ecosystem Subcommittee to address all elements of post-delisting grizzly bear management in the Yellowstone region, including population monitoring and mortality limits at the time. FWS-Rel-Docs-005847. The proposed rule referred to this document as "the comprehensive post-delisting management plan for a recovered population" and stated that it "will guide post-delisting management" of Yellowstone region grizzly bears. FWS-LIT- 019236, 19241.

Response: Partially disputed. The draft Conservation Strategy was developed by the Interagency Grizzly Bear Committee, not the Interagency Grizzly Bear Study Team.

145. The draft Conservation Strategy was not signed or finalized at the time the proposed rule was published. After the close of public comment on the proposed rule and draft Conservation Strategy, the state and federal agencies that constituted the voting members of the IGBC's Yellowstone Ecosystem Subcommittee continued to revise and amend the draft Conservation Strategy by

majority vote. *See* FWS-Emails-012520 (September 2017 revision); FWS-Rel-Docs-002877 (November 2017 revision); FWS-Rel-Docs-002274 (final version as adopted).

Response: Undisputed.

146. Significant changes were made to the Conservation Strategy during these rounds of revisions, resulting in substantial differences between the draft Conservation Strategy released for public comment with the proposed rule and the final 2016 Conservation Strategy referred to in the final rule. *Compare* FWS-LIT-016272 (draft) *with* FWS-Rel-Docs-002274 (final).

Response: Disputed. As an initial matter, FWS is not required to publish the Conservation Strategy for public comment. Nevertheless, FWS did solicit public comment on the draft conservation strategy and considered the 665,000 comments received. *See* 82 Fed. Reg. at 30547. FWS also considered the opinions of five independent, peer reviewers on the draft conservation strategy. *See* FWS_Rel_Docs_005165.

147. Public comment was not solicited or accepted on revisions of the Conservation Strategy after the version released

with the proposed rule. *See* FWS-Rel-Docs-002877 ("We are not taking public comment on this revised . . . Conservation Strategy").

Response: Partially disputed. FWS is not required to publish this document for public comment.

148. The draft Conservation Strategy provided that the "Chao2" population estimator — which has been used by the IGBST since 2002 to estimate the Yellowstone region grizzly bear population, set population goals, and determine mortality limits –

– would continue to be used for post-delisting monitoring of Yellowstone region grizzly bears, unless and until the best available science recommends an updated protocol. FWS-Rel-Docs- 005889–90. The final 2016 Conservation Strategy instead specifies that "[t]he IGBST may continue to investigate new methods for population estimation as appropriate," and that Chao2 would be used "for the foreseeable future." FWS-Rel-Docs-002319; FWS-Rel- Docs-001699 (final 2016 Conservation Strategy, Appendix C).

Response: Disputed. As explained in the Grizzly Bear Recovery Plan supplement, "the model-averaged Chao2 population estimator…will continue to be used until another scientifically valid method is

developed. [FWS] eliminated the criterion's dependence on a specific method (e.g., Chao2) so that the IGBST can rapidly implement improved scientific methods as they become available in the peer reviewed literature," rather than having to amend the Recovery Plan once again. FWS_LIT_016429.

149. Chao2 is considered a "conservative" method of estimating population, meaning it produces relatively low estimates compared to other methods. FWS-Rel-Docs-005889–90. Other common methodologies such as the "Mark-Resight" method produce much larger population counts when applied to the same population. *See* FWS-Pub-Cmt-006038; FWS-Rel-Docs-003725; FWS-Emails-016838.

Response: Undisputed, but FWS clarifies that the "Chao2 estimate does become increasingly negatively biased with increasing density." 82 Fed. Reg. at 30564.

150. Demographic standards including recovery goals, mortality thresholds, and emergency status review triggers in the final 2016 Conservation Strategy are based on IGBST monitoring using the Chao2 population estimate. No provision in the final 2016 Conservation Strategy requires these figures to be recalibrated if a

new population estimate methodology is adopted. *See* FWS-Emails-008546–47, 55–56; FWS-Rel-Docs-002319; FWS- Rel-Docs-001699.

Response: Disputed. There is not a current proposal to change from Chao2.

151. This issue relating to the final 2016 Conservation Strategy's lack of assurance for recalibration if a new population estimation method is adopted, was repeatedly raised as a concern by FWS, National Park Service, Peer Reviewers, and public commenters, as well as members of the IGBST. *See e.g.* FWS-Del-Doc-011341 (noting that the states' changes to the draft Conservation Strategy regarding recalibration "says no matter what method is used to estimate population size, [the states] will manage down to 600 or so bears. This is completely unacceptable and will not pass peer review or the red face test. Chris [Servheen, (former grizzly bear recovery coordinator)]."); FWS-Emails-016689 (noting Service's concerns with states' recalibration language and suggesting alternatives); FWS-Emails-019305 (IGBST suggesting language on recalibration and noting that "[d]etermining the correlation or correction between the model-averaged Chao2 and any new

estimation method is critical to maintain the population at the 2002-2014 average."); FWS-Emails-025504 (National Park Service official expressing concern with state's recalibration position: "We firmly believe that we would need to recalibrate the minimum population threshold if a new method results in a new higher population estimate."). The Service's Director even expressed his concern that the states refused to allow adequate recalibration language to be included in the final 2016 Conservation Strategy. *See* FWS-Emails-008546 (former Director Ashe stating: "It is much clearer, and frankly scientifically warranted, to just state clearly if the population estimator is changed we will recalibrate. Why the states are unwilling to make this commitment, frankly, is quite concerning."); *see also* FWS- Emails-019333 (State of Montana official noting the recalibration issue is "a very contentious issue between the states and [Service] that was resolved at upper levels by agreeing to wording referencing collaboration and adaptive management" and that an effort to "go back on this agreement" would "likely be detrimental to the [Conservation Strategy] and set us back a long ways.").

Response: Partially disputed. FWS_Emails_016689 addresses developed site standard, not population estimate.

152. The Tri-State Memorandum of Agreement is an instrument signed by the States of Montana, Idaho, and Wyoming that implements portions of the final 2016 Conservation Strategy pertaining to mortality management. FWS-Rel-Docs-001293.

Response: Undisputed.

153. The Tri-State Memorandum of Agreement commits no funding to any grizzly bear management from any signatory State, and any State may withdraw entirely from the Tri-State Memorandum of Agreement with 180 days' written notice to the other States. FWS-Rel-Docs-001299.

Response: Partially disputed. The Memorandum of Agreement is not a vehicle for funding commitments as those are done by appropriations.

154. The Tri-State Memorandum of Agreement establishes a protocol to determine available "discretionary mortality" annually, defined as all hunting kills and lethal removals by management agencies. *Id.* Available discretionary mortality is calculated each

year by subtracting the previous year's total grizzly bear mortality from the maximum allowable mortality specified by the Conservation Strategy. *See* 82 Fed. Reg. 30,533 (Table 4); FWS-Rel-Docs-001296. The States allocate available discretionary mortality among themselves on a *pro rata* basis based on each State's land area within the monitoring area outside National Park Service lands. FWS-Rel-Docs-001297.

Response: Partially disputed. FWS clarifies that if the population is less than 600, the Parties will not allow discretionary mortality unless necessary to address human safety issues. FWS_Rel_Docs_001296. If the population is greater than 600, "if total allowable independent male or female mortality is exceeded, the number exceeding the total allowable mortality will be subtracted from the next year's discretionary mortality available for harvest for that gender." *Id.*

155. The Conservation Strategy and Tri-State Memorandum of Agreement's mortality limits allow for substantially more annual mortality among adult males than adult females. At the levels corresponding to the current IGBST population estimate, annual

mortality is capped at 20% of the adult male population and 9% of the adult female population FWS-Rel-Docs-002316.

Response: Partially disputed. FWS adds that the "higher rate for independent males is biologically sound since population growth is less sensitive to independent male mortality than to independent female mortality." FWS_Rel_Docs_002316. Moreover, the percentages cited by Plaintiffs correspond to a grizzly bear population of between 675 and 747 bears. *Id.* These rates correspond with the mortality rate that resulted in population stability from 2002-2011. *Id.*

156. The Chao2 population estimator bases its estimate entirely on the annual count of females with cubs, extrapolating other demographics and the total population from that count based on fixed coefficients. FWS-Rel-Docs-001699.

Response: Disputed. Plaintiffs' citation is incorrect.

157. The final 2016 Conservation Strategy does not require the states and/or Service to use the Chao2 population estimator in perpetuity. Use of the Chao2 population estimator will only be used in the "foreseeable future" and no definition of that term is provided.

FWS-LIT-017129. This means a different method could potentially be used in the future. Chris Servheen, the Service's former grizzly bear coordinator, explained that this approach "is fundamentally impossible and is biologically and legally indefensible." FWS-Del-Em-0000144611 (comment 1). "If we used the mark-resight estimate instead of Chao2, we would get about 1200 bears. If we accept this approach, the states could reduce 1200 bears to 683. The 2007 population estimate using Chao2 was 683, but there were actually over 1200 bears in the population in 2007 if we used mark-resight. This is the Chinese menu approach picking what you want from various options." *Id*.

Response: Partially disputed. As FWS already addressed in response to paragraph 132, Plaintiffs cite the opinion of one Service employee. In fact, as explained in the Grizzly Bear Recovery Plan supplement, the current accepted method "used to estimate population size is the model-averaged Chao2 population estimator and this method will continue to be used until another scientifically valid method is developed. [FWS] eliminated the criterion's dependence on a specific method (e.g., Chao2) so that the IGBST can rapidly implement

improved scientific methods as they become available in the peer reviewed literature," rather than having to amend the Recovery Plan once again. FWS_LIT_016429. Moreover, the Chao2 population estimator is known to be biased low. 82 Fed. Reg. at 30564 (The "Chao2 estimate does become increasingly negatively biased with increasing density.").

158. Neither the Conservation Strategy nor the Tri-State Memorandum of Agreement prescribe any limits on grizzly bear mortality outside the monitoring area. FWS-Rel-Docs-001298.

Response: Undisputed.

159. The Service relied on the Conservation Strategy throughout the final rule to offset threats to the Yellowstone region grizzly bear population, including, among others, human- caused mortality, FWS-Rel-Docs-001459, 001461–63, habitat destruction, FWS-Rel-Docs-001454-57, and genetic isolation, FWS- Rel-Docs-001511–13. However, the Service never allowed public comment on the final 2016 Conservation Strategy. The Service allowed public comment on the draft Conservation Strategy issued with the proposed rule in March 2016 and reopened the comment process in September

2016 to address post-delisting grizzly management measures enacted by Montana, Wyoming, and Idaho, which did not include the final 2016 Conservation Strategy. *See generally* FWS-LIT-019226; FWS-LIT-019315. The Service refused, however, to allow any opportunity for public comment informed by the final 2016 Conservation Strategy itself. *See* FWS-Rel-Docs- 001480.

Response: Disputed. Again, FWS was not required to allow public comment on the Conservation Strategy. Nevertheless, it did so and considered those public comments in adjusting the Conservation Strategy. *See* 82 Fed. Reg. at 30547.

160. The parties to the final 2016 Conservation Strategy agreed to adopt changes to the document's grizzly management framework that departed in critical ways from earlier drafts in a manner that weakened grizzly protections, and that the public could not reasonably have anticipated. Such changes included: (1) Abandoning provisions of the draft Conservation Strategy that generally required an attempt to resolve grizzly conflicts, including livestock depredations, through at least one relocation before killing the offending bear, *compare* FWS-LIT-016367 (draft containing

relocation requirements) *with* FWS-LIT-017073–74 (final omitting requirements); (2) Abandoning a commitment to maintain secure grizzly bear habitat within a designated 9,210- square-mile conservation area at or above levels that existed in 1998, which were believed to correlate with an increasing bear population, FWS-LIT-016336–37, and instead announcing formation of a planning group to propose unspecified "revisions to the 1998 habitat standards" based on an asserted need for, among other things, "more administrative infrastructure," FWS-LIT- 017039–40; and (3) Responding to the threat that a future change in grizzly population estimation methodology could open the door to a dramatic increase in allowable grizzly bear mortality under the Conservation Strategy management framework by adding a vague assurance that the current estimation methodology —the Chao2 estimator — will continue to be used "for the foreseeable future." FWS-LIT-017030.

Response: Disputed. FWS clarifies that, regardless of the number of relocations, "[a]ll known and probable mortalities will be limited by the overall mortality limits within the DMA as described in Tables 2 and Table 4." FWS_LIT_017028. Additionally, habitat standards and

estimation methodology will be in effect for the foreseeable future and any "[r]evisions to the Conservation Strategy would be based on the best available science, approved by the [Yellowstone Grizzly Coordinating Committee], and subject to public comment." 82 Fed. Reg. at 30575.

161. The Service relied on these weakened measures in the final rule to determine that the Yellowstone grizzly segment was not threatened under the ESA. *See* FWS-Rel-Docs-001454–56, 001459–60, 001478 (1998 habitat conditions), FWS-Rel-Docs- 001462 (conflict removal provisions), FWS-Rel-Docs-001498–99 (reliance on Chao2 for "foreseeable future"). Notably, the Service extensively relied on the Conservation Strategy's purported maintenance of 1998 habitat security conditions to address the threat of grizzly habitat destruction within the conservation area notwithstanding the final 2016 Conservation Strategy's explicit announcement that this requirement would soon be revised. *See* FWS-Rel-Docs-001454–56, 001459–60.

Response: Disputed. Revisions referred to by Plaintiffs are discussed in the 2016 Strategy and are in response to increased

visitation to National Park Lands. FWS_LIT_017039. As the Conservation Strategy discusses, any future management modifications will have to consider the best way to strategically manage the impacts of more people on the landscape while ensuring the continued protection of grizzly bears and their habitat. "Proposed modifications will minimize deviations to the 1998 baseline." *Id.* Additionally, any proposed revisions to the 1998 habitat standards will be released for public comment and approved by the Yellowstone Grizzly Bear Coordinating Committee.

Mortality Limits

162. The final rule and final 2016 Conservation Strategy together establish measures that, in the Service's estimation, will address any emerging threats to Yellowstone region grizzly bears after the states assume management responsibilities. *See* FWS- Rel-Docs-001448–49 (final rule describing Conservation Strategy). Chief among these measures is a set of criteria that purport to maintain grizzly mortality below certain thresholds with the ultimate goal of "maintain[ing] the population around the long- term average population size for 2002-2014 of 674." FWS-Rel- Docs-001463; *see also*

FWS-Rel-Docs-001470–71 (regardless of the cause of change in the population growth rate, "the management response would be the same: To carefully manage human-caused mortality based on scientific monitoring of the population.").

Response: Undisputed.

163. The final rule and Conservation Strategy set these thresholds at different points for three different cohorts of the population — independent females, independent males, and dependent young — depending on total population size as determined by the Chao2 population estimator. FWS-Rel-Docs-001464, 002316. For example, the mortality threshold for independent females is set at less than 7.6% when the total population is estimated to be less than or equal to 674 grizzly bears, 9% when the total population is estimated to be 675 to 747 grizzly bears, and 10% when the total population is estimated to exceed 747 grizzly bears. *See* FWS-Rel-Docs-001464.

Response: Undisputed.

164. The Service has claimed that the final rule and Conservation Strategy set limits on the total number of grizzly bears

that may be killed in a given year and, all threats to bears notwithstanding, these limits will prevent any population decline. *See, e.g.*, FWS-Rel-Docs-001459 (concluding that "mortality limits will preclude population-level impacts" due to bear deaths from livestock conflicts). However, the mortality thresholds do not limit the number of bears that may be killed due to conflicts with human activities. According to the Conservation Strategy, "[a]ny mortality threshold will not affect the . . . management of conflict grizzly bears" and "[s]tate [grizzly bear management] plans provide for the take of conflict bears regardless of the current mortality quota upon consultation with all involved agencies." FWS-Rel-Docs-002328. Consistent with this statement, the state management documents published with the final rule provide for recreational hunting of grizzly bears to be halted when mortality thresholds are reached, but provide no similar limitation on management removals — that is, bear killing by government agencies in response to conflicts with humans. FWS-LIT-005472 (Idaho Proclamation governing grizzly bear management), FWS- LIT-016942 (Wyoming Grizzly Bear

Management Regulation), FWS-LIT-009400 (Draft Montana Grizzly Bear Hunting Regulations).

Response: Disputed. Plaintiffs have removed the word "immediate" from the quoted portion of the Conservation Strategy. The statement reads in full: "Any mortality threshold will not affect the *immediate* management of bears for human safety concerns or for management of nuisance bears." FWS_LIT_017031 (emphasis added). The 2017 Rule explains that "if the previous year's total mortality exceeded total allowable mortality, then any exceedance will be subtracted from allowable discretionary mortality for the current year." 82 Fed Reg. at 30532.

165. Management removals accounted for 43% of human-caused bear mortalities between 2002 and 2014, FWS-Rel-Docs-001462, and 58.5% of such mortalities in 2015, FWS-LIT-022907.

Response: Undisputed.

166. The final rule states that under the Conservation Strategy, "[a]ny mortality that exceeds allowable total mortality limits in any year will be subtracted from that age/sex class allowable total mortality limit for the following year." FWS-Rel-

Docs-001465. But both Wyoming and Idaho's bear management plans state that only "*hunting* mortality that exceeds total mortality limits" will count against the following year's limit. FWS-LIT-005472 (Idaho Proclamation governing grizzly bear management), FWS-LIT-016942 (Wyoming Grizzly Bear Management Regulation) (emphasis added). Thus, in Wyoming and Idaho, where the majority of grizzly bears live and human- bear conflicts occur, conflict mortality may exceed the mortality limit without reducing the mortality available in the following year. *See* FWS-LIT-005472, 016942.

Response: Partially disputed. FWS recognizes the discrepancy between the Idaho Proclamation and Wyoming Grizzly Bear Management Regulation on the one hand and the Memorandum of Agreement between Wyoming, Montana and Idaho on the other hand. However, the Memorandum of Agreement plainly states that if "the population is less than 600, the Parties will not allow discretionary mortality unless necessary to address human safety issues." FWS_Rel_Docs_001296. The Memorandum of Agreement goes on to say that, "[a]t any population level greater than 600, if

total allowable independent male or female mortality is exceeded, the number exceeding the total allowable mortality will be subtracted from the next year's discretionary mortality available for harvest for that gender." *Id.*

167. The Conservation Strategy states that "there will be no discretionary mortality unless necessary for human safety" if the annual bear population estimate falls below 600. FWS-Rel-Docs-002316. However, the Service and state wildlife agencies consider many management removals — including removals of bears that depredate livestock — "necessary for human safety." *See* FWS-Rel-Docs-001462 ("Conflict bears can become a threat to human safety . . . if they are not addressed."); FWS-LIT-033557 (Wyoming Grizzly Bear Management Plan) ("Grizzly bears involved in livestock depredation often times create human safety risks and may be handled as such if the circumstances warrant."). Self-defense kills by elk hunters who encounter grizzly bears are further exempt from this lower limit, because FWS does not consider such kills "discretionary mortality." FWS-Rel-Docs- 001465 (defining

"discretionary mortality" as "hunting allocation or management removals").

Response: Partially Disputed. Plaintiffs' allegations are argumentative.

168. Under the ESA regime, grizzly bears that depredated livestock could be killed "only if . . . [i]t has not been reasonably possible to eliminate such threat or depredation by live-capturing and releasing unharmed in a remote area the grizzly bear involved." 50 C.F.R. § 17.40(b)(1)(i)(C). By contrast, the Conservation Strategy permits state wildlife managers to kill conflict bears at their discretion "after considering the cause, location, and severity of the incident(s)," without any requirement that they first attempt to address the conflict by relocating the bear. FWS-Rel-Docs-002369.

Response: Partially disputed. FWS clarifies that the Conservation Strategy states the following: "Removal of conflict bears will be carefully considered and counted against the mortality limits for the [Greater Yellowstone Ecosystem] as described in the Conservation Strategy. Recognizing that conservation of female bears is essential to

maintenance of a grizzly bear population, removal of conflict females will be minimized." FWS_Rel_Docs_002369.

169. The Service expressed their concern with including mortality limits that effectively allow for a declining population. FWS-Del-Doc-011341 ("We have gone as far as we can go with almost nothing in return from the states. We have allowed managed population decline and they have not added one thing from the specific management responses table we sent them in the framework. They want to hunt down to 600, be able to exceed mortality limits without any response whatsoever unless the population is below 674, and manage down to 600 or so no matter what method is used to count bears."); *See also* FWS-Del-Em-00000122522–23.

Response: Partially disputed. FWS employee cited expressed those concerns. However, FWS's consideration of the best available science is reflected in the 2017 Rule.

Lacking Remnant Population Analysis

170. In the final rule, the Service designated the Yellowstone region grizzly bear population as a distinct population segment

("segment") and removed it from the list of threatened species under the ESA. FWS-Rel-Docs-001436. In so doing, the Service recognized that the U.S. Federal District Court for the District of Columbia had disapproved an identical use of the ESA's distinct population segment language in the case of *Humane Society of the United States v. Jewell*, 76 F. Supp. 3d 69 (D.D.C. 2014), but stated that "[w]e respectfully disagree with the [D.C.] district court's interpretation of the [distinct population segement] policy." FWS-Rel-Docs-001450. Further, FWS in the final rule explicitly and repeatedly declined to consider the status of the already listed grizzly bear entity, the lower-48 grizzly population, or the impact of its Yellowstone grizzly segment delisting decision on the status or conservation of that entity, stating that "consideration and analyses of grizzly bear populations elsewhere in the lower 48 States is outside the scope of this rulemaking." FWS-Rel-Docs-001479; *accord* FWS-Rel-Docs-001485, 001557.

Response: Disputed. Plaintiffs imply that FWS cannot identify a distinct population segment in an already-listed species and then delist that distinct population segment and this is incorrect. The D.C.

Circuit determined that the "Service permissibly concluded that the Endangered Species Act allows the identification of a distinct population segment within an already-listed species, and further allows the assignment of a different conservation status to that segment if the statutory criteria for uplisting, downlisting, or delisting are met." *Humane Soc'y of U.S. v. Zinke*, 865 F.3d 585, 600 (D.C. Cir. 2017).

171. Approximately one month after the Service issued the final rule, the U.S. Circuit Court of Appeals for the District of Columbia affirmed the judgment of the D.C. district court in the *Humane Society* case. *Humane Soc'y of U.S. v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017); *see also* 82 Fed. Reg. 57,698, 57,698 (Dec. 7, 2017).

Response: Undisputed.

172. On December 7, 2017, the Service published in the Federal Register a notice that it was seeking public comment concerning "the potential implications for the Greater Yellowstone Ecosystem final rule in light of the *Humane Society* ruling." 82 Fed. Reg. at 57,698. The Service acknowledged that the *Humane Society* ruling "may impact the Greater Yellowstone Ecosystem final rule,

which also designated a portion of an already-listed entity as a [distinct population segment] and then revised the listed entity by removing the [distinct population segement] due to recovery." *Id.* The Service stated that it "will address public comments and notify the public of our conclusions by March 31, 2018," but that the final rule "will remain in effect during this review process." *Id.* at 57,699.

Response: Undisputed.

173. The Service ultimately concluded its post-hoc review of the final rule on April 30, 2018, when it published in the Federal Register a "determination" affirming the Yellowstone grizzly segment delisting notwithstanding the *Humane Society* ruling. 83 Fed. Reg. 18,737 (Apr. 30, 2018). However, nowhere in this post- hoc "determination" did FWS address important questions regarding the Yellowstone grizzly segment delisting that are highlighted by the *Humane Society* ruling, including whether the lower-48 grizzly population minus the Yellowstone grizzly segment remains a listable entity, or whether all remaining grizzly recovery areas in the lower-48 might be independently listable as distinct population segments. *See generally* 83 Fed. Reg. at 18,737–43.

Response: Disputed. This was not a post-hoc determination.

174. Nor has the Service addressed such questions in other formal analyses of the lower-48 grizzly bear listing. To the contrary, in the Service's August 2011 Five-Year Review of the lower-48 grizzly listing prepared under ESA Section 4(c)(2), 16 U.S.C. § 1533(c)(2) — which appears to mark the Service's only formal consideration whether the lower-48 grizzly listing would satisfy requirements for listing as a distinct population segment— the Service found the lower-48 listing to satisfy the "significance criterion" for distinct population segment listing largely because the Yellowstone region represents "an unusual and unique ecological setting for the taxon" and because Yellowstone region bears "are genetically divergent from nearby adjacent populations." FWS-LIT-016075, 016077. The Service did not analyze whether a lower-48 listing that carves out and excludes the Yellowstone grizzly segment would satisfy distinct population segment listing requirements. *See id.*

Response: Disputed. 83 Fed. Reg. at 18,737–43.

Response to Plaintiff Aland's Statement of Undisputed Facts

As an initial matter, Federal Defendants object to Plaintiff Aland's filing of a separate statement of facts. As noted by Plaintiffs, Robert Aland, plaintiff in 18-cv-16-DLC, did not coordinate with the other plaintiffs in preparing their joint statement of facts as required by the Court. ECF_187:1 n.1; ECF_178_4. Nor did Mr. Aland comply with Local Rule 56.1(3) in submitting Exhibit A to Plaintiffs' statement of facts. *See* ECF_187-1.

As noted in Federal Defendants' Statement of Undisputed Facts, this case is reviewed in accordance with the provisions of the Administrative Procedure Act (APA), 5 U.S.C. § 706. *See San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 601-02 (9th Cir. 2014). Under the APA, "[t]he task of the reviewing court is to apply the appropriate APA standard of review, 5 U.S.C. § 706, to the agency decision based on the record the agency presents to the reviewing court." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743-44 (1985) (citation omitted); *Jewell,* 747 F.3d at 601-02 (the ESA does not "supply a separate standard for our review, so we review claims under [the

ESA] under the standards of the APA," including the requirement that "review is limited to 'the administrative record already in existence, not some new record made initially in the reviewing court'")(citations omitted). In other words, review is limited to the administrative record in existence at the time the agency rendered its decision. 5 U.S.C. § 706. Thus, FWS objects to Plaintiff Aland's reliance on extra-record sources, including his own Complaint, to establish "facts." Nevertheless, Federal Defendants provide the following responses to Mr. Aland's Exhibit A to Plaintiffs' statement of facts.

General

1. Grizzly bears, the subjects of this litigation, are an iconic species in American history and "the great symbol of American wildness." They played a prominent role in the 1804-06 Lewis & Clark Expedition as stated in Clark's contemporaneous journal.

Response: Undisputed as to the content of the 2017 Rule. The second sentence is based on a document outside the administrative record and, in any event, is irrelevant to this suit.

2. Plaintiff has standing, and has satisfied all preconditions, to prosecute this citizen suit.

Response: Disputed. This statement is a legal conclusion and therefore is disputed on that basis. *See* Administrative Record; 2017 Rule; and the Memorandum in Support of Federal Defendants' Cross Motion for Summary Judgment.

3. This Court has jurisdiction over Plaintiff's Claims 1, 3, 5, 6, and 7 and authority to grant the relief requested by Plaintiff.

Response: Disputed. This statement is a legal conclusion and therefore is disputed on that basis. *See* Administrative Record; 2017 Rule; and the Memorandum in Support of Federal Defendants' Cross Motion for Summary Judgment.

Claim 1—Relitigation Precluded by Collateral Estoppel

4. On November 17, 2005, Federal Defendants first published in the Federal Register a proposed rule to remove ESA protection for the Greater Yellowstone Ecosystem population of grizzly bears.

Response: Undisputed as to the content of the proposed Rule.

5. On March 29, 2007, Federal Defendants published in the Federal Register a final rule to remove ESA protection for the Greater Yellowstone Ecosystem population of grizzly bears ("2007 Final Rule").

Response: Undisputed as to the content of 2007 Rule.

6. The 2007 Final Rule was challenged in three ESA citizen suits filed in 2007, including a suit filed by Plaintiff, *Aland v. Kempthorne*, U.S. District Court, Idaho District, Case No. 1:08-cv-00024-EJL ("Aland 2008"). One suit was filed in the Idaho District Court; Plaintiff's suit was filed in the Illinois District Court but was transferred to the Idaho District Court; and the third suit (see ¶ 8) was filed in this Court.

Response: Undisputed as to the existence of those lawsuits.

7. Federal Defendants requested this Court to transfer the third suit to the Idaho District Court, but this Court rejected that request.

Response: Undisputed as to that lawsuit.

8. In 2009 this Court held that the 2007 Final Rule was invalid; and in 2011 the U.S. Court of Appeals for the Ninth Circuit unanimously affirmed this Court's decision.

Response: Disputed. On appeal, the Ninth Circuit reversed the district court on the issue of whether FWS reasonably concluded that "adequate regulatory mechanisms were in place to maintain a

recovered Yellowstone grizzly population after delisting." *Greater Yellowstone Coal. v. Servheen*, 665 F.3d 1015, 1030-32 (9th Cir. 2011).

9. The Ninth Circuit entered its Mandate in *Greater Yellowstone* on January 18, 2012, and its November 22, 2011, judgment in favor of plaintiff took effect on January 18, 2012. This Court entered an Order on January 20, 2012, confirming its September 21, 2009, judgment for plaintiff, except as modified by the Ninth Circuit, and closed the case on March 30, 2012.

Response: Disputed. The order entered on January 20, 2012, orders that "summary judgment is entered in favor of the governmental Defendants as to Count I of Plaintiff's Complaint. The United States Fish and Wildlife Service rationally concluded that existing regulatory mechanisms are adequate to protect a recovered Yellowstone grizzly population." No. 07-134 (D. Mont. Jan. 20, 2012), ECF 149.

10. Federal Defendants, having reviewed the records and opinions of this Court and the Ninth Circuit, decided not to request (a) a panel rehearing or rehearing en banc by the Ninth Circuit; (b)

reconsideration by the Ninth Circuit; or (b) review by the U.S. Supreme Court upon writ of certiorari.

Response: Disputed. On remand, FWS and the regional experts extensively researched and analyzed every facet of the grizzly bear's interaction with food resources in the Ecosystem. *See, e.g.*, FWS_LIT_005734; FWS_LIT_000888; FWS_LIT_002293; FWS_LIT_003422; FWS_LIT_004485; FWS_LIT_011549; FWS_LIT_016502.

11. *Greater Yellowstone* was fully, fairly and competently litigated by Federal Defendants in this Court and the Ninth Circuit. The evidence was set forth in an Administrative Record ("2008 AR"), which (a) was compiled by Federal Defendants; (b) contained over 50,000 pages; and (c) was filed with this Court (and with the Idaho District Court in Aland 2008 and the other case) with a Declaration executed by Christopher Servheen, Federal Defendants' then-Grizzly Bear Recovery Coordinator, stating that it was accurate and complete.

Response: Disputed. The litigation speaks for itself.

12. By letter dated May 24, 2012, only four months after this Court's judgment in *Greater Yellowstone* became effective (see ¶¶ 9-10), Wyoming Governor Matthew Mead requested then-Secretary of the Interior Ken Salazar to make another effort to remove the Greater Yellowstone Ecosystem grizzly bears' ESA protection.

Response: Undisputed as to the content of that letter.

13. Governor Mead's May 24, 2012, letter to Secretary Salazar erroneously and substantially overstated—by 60%--the State of Wyoming's annual management costs with regard to Greater Yellowstone Ecosystem grizzly bears based upon records prepared by the State of Wyoming; and Governor Mead, despite being advised of the error by Plaintiff, appears never to have corrected the error.

Response: Disputed. Mr. Aland has not presented sufficient evidence to allow FWS to verify how Mr. Aland arrived at that figure. Whether the Governor correctly stated the costs of Greater Yellowstone Ecosystem grizzly bears to the State or not is irrelevant because the 2017 Rule is based on the best scientific data available.

14. By letter dated July 19, 2012, responding to Governor Mead's May 24, 2012 letter, Secretary Salazar stated that Federal Defendants would make another effort to remove the Greater Yellowstone Ecosystem grizzly bears' ESA protection.

Response: Disputed. Secretary Salazar stated that FWS consulted with experts "in bear biology and statistics to give careful consideration to reexamination of whether the declines in whitebark pine poses a threat to grizzly bears" that would warrant continued ESA listing. FWS_Rel_Docs_007006. After discussions with the agency partners in the Interagency Grizzly Bear Study Team and the outside experts, who concluded that the "Yellowstone grizzly population was recovered and that declines in whitebark pine do not threaten the future of this [g]rizzly population," FWS informed the Governor that it would be looking to build a "strong scientific synthesis of all the information" the agency "has on the relationship between whitebark pine and grizzly bears in the Yellowstone ecosystem and to use this synthesis as a foundation for a new proposed decision." FWS_Rel_Docs_007006-07. FWS also informed

the Governor that the synthesis was expected to take around 18 months to prepare. FWS_Rel_Docs_007007.

15. On March 11, 2016, Federal Defendants published in the Federal Register *Endangered and Threatened Wildlife and Plaints; Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears from the Federal List of Endangered and Threatened Wildlife; Proposed Rule,* again proposing to remove ESA protecting for the Greater Yellowstone Ecosystem grizzly bears ("2016 Proposed Rule").

Response: Undisputed as to the content of the 2016 Proposed Rule.

16. Federal Defendants published the 2017 final Rule removing ESA protection from Greater Yellowstone Ecosystem grizzly bears in the Federal Register on June 30, 2017, effective July 31, 2017.

Response: Undisputed as to the content of the 2017 Rule.

17. Federal Defendants relied upon *Greater Yellowstone* throughout the 2017 Final Rule.

Response: Partially disputed. FWS took *Greater Yellowstone* into consideration when preparing the 2017 Rule. Beyond that, Plaintiff's assertion is ambiguous.

18. There have been significant factual developments adverse to Federal Defendants since the 2007 Final Rule and the *Greater Yellowstone* decisions, including, among others, increased human-caused mortalities of Greater Yellowstone Ecosystem grizzly bears, continued loss of food sources (including the lure of Greater Yellowstone Ecosystem grizzly bears into highly lethal environments as they search for alternate food sources) and climate changes; and those developments support retention of ESA protection for the Greater Yellowstone Ecosystem grizzly bears because those changes indicate that the bears' chances of survival deteriorated to the date of the 2017 Final Rule. For example, the States of Idaho, Montana and Wyoming, with Federal Defendants' encouragement, entered into a Memorandum of Agreement ("Memorandum of Agreement") in August 2016 that will divvy up annual "discretionary mortalities" (i.e., trophy hunting deaths) and reduce the number of Greater Yellowstone Ecosystem grizzly bears annually to a minimum level (below the current population level) specified in the Memorandum of Agreement. The States of Idaho and Wyoming have already

adopted hunting seasons for Greater Yellowstone Ecosystem grizzly bears. There have been no factual developments in that time period that counteract the Memorandum of Agreement or the hunting seasons or otherwise increase the Greater Yellowstone Ecosystem grizzly bears' chances of survival; and Federal Defendants did not set forth any such changes in the 2017 Final Rule.

Response: Disputed. It appears that Plaintiff is asserting that the 2017 Rule is not supported by the administrative record and is arbitrary and capricious. This is a legal conclusion and is of course disputed. Moreover, contrary to Plaintiff's assertions, the 2017 Rule is based on the best available science, which indicates that the Greater Yellowstone Ecosystem grizzly population has recovered. Federal Defendants dispute Mr. Aland's generalized assertions about grizzly bear mortalities and food sources. Federal Defendants addressed these assertions in great detail in the 2017 Rule and in response to Plaintiffs' Statement of Facts. *See* 2017 Rule and Responses to Paragraphs 84-105 (food sources); 106-110 (human caused mortalities); 114 (climate change). Regarding hunting,

because the Greater Yellowstone Ecosystem population is recovered, private citizens may hunt grizzly bears in the Greater Yellowstone Ecosystem if the background mortality rate is under the allowable limit, if any hunting quota has not been met, and if they have a hunting license issued by State or Tribal wildlife agencies, following guidance in the Tri-State Memorandum of Agreement. 82 Fed. Reg. at 30528. Moreover, under the Memorandum of Agreement, all discretionary and human-caused mortality is accounted for in establishing the next year's mortality limits. FWS_Rel_Docs_1465 & Table 4. If the population has fewer than 600 bears, the Parties will not allow discretionary mortality unless necessary to address human safety issues. FWS_Rel_Docs_001296.

19. There have been significant legal developments adverse to Federal Defendants since the 2007 Final Rule and *Greater Yellowstone* decisions, including the decision in *Humane Society of the United States v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017).

Response: Disputed. The D.C. Circuit determined that the "Service permissibly concluded that the Endangered Species Act allows the identification of a distinct population segment within an already-

listed species, and further allows the assignment of a different conservation status to that segment if the statutory criteria for uplisting, downlisting, or delisting are met." *Humane Soc'y*, 865 F.3d at 600. Although the Court found that FWS has the legal authority to identify a distinct population segment from within an already-listed species, it concluded that FWS did not properly do so in that case. The remainder of Plaintiff's statement is vague and is, therefore, disputed.

20. Over 195,000 comments were submitted by the public pursuant to the APA in response to the 2005 Proposed Rule. According to statistics prepared contemporaneously by Federal Defendants, 99.3%, including 90.4% from Idaho, Montana, and Wyoming, opposed delisting. Despite that overwhelming sentiment, Federal Defendants issued the 2007 Final Rule, which was invalidated in the *Greater Yellowstone* litigation.

Response: Partially disputed in that, because Mr. Aland is relying on documents not in the administrative record before the Court, FWS is unable to confirm the 90.4% figure he provides. Moreover, Congress requires FWS to make listing determinations on the basis

of the best available science regarding five listed factors. 16 U.S.C. § 1533(a)(1). Public sentiment is not one of those factors.

21. Defendants justified their disregard of the overwhelming public sentiment against delisting on the ground that the public comments were not a "vote count" (2008 AR 46683) or a "binding referendum."

Response: Disputed. Plaintiff is citing documents from an administrative record not before the Court. And, again, Congress requires FWS to make listing determinations solely on the basis of the best available science regarding five listed factors. 16 U.S.C. § 1533(a)(1). Public sentiment is not one of those factors.

22. The public submitted over 665,000 comments with regard to the 2016 Proposed Rule. However, by letter dated November 1, 2017, from their Region 6 Office, Federal Defendants informed Plaintiff, in a response to a request filed by Plaintiff under the federal Freedom of Information Act ("FOIA"), 5 U.S.C. § 552, on May 11, 2017 (FWS-2017-00784), that Federal Defendants did not prepare statistical analyses for those comments comparable to the

statistical analyses they prepared for the public comments relating to the 2005 Proposed Rule (see ¶ 20).

Response: Disputed. Mr. Aland appears to be citing to a document not in the administrative record (FWS-2017-00784).

23. Federal Defendants have attempted to justify their disregard of the public's overwhelming sentiment against the 2005 Proposed Rule, 2007 Final rule, 2016 Proposed Rule and 2017 Final Rule on the ground that for ESA purposes they are only required to consider science-based comments. By email dated January 18, 2017, Federal Defendants' Region 6 Office informed Plaintiff as follows: It is no longer common practice for us to analyze public comments in the way you describe since the standard in the Endangered Species Act requires us to make determinations based on the best scientific and commercial information available. However, all comments received during the comment period are available to the public on regulations.gov and it is thus possible for anyone to determine what proportion of comments received agreed with or disagreed with our proposal.

Response: Disputed. It is not that FWS is "only required to consider science-based comments"; rather, Congress only permits FWS to consider the best scientific and commercial data available. In other words, if FWS ignored the best available science and made a determination based on public sentiment, as Plaintiff proposes, FWS would be violating the ESA. Moreover, it appears that Plaintiff is citing a document that is not contained in the administrative record. Thus, FWS cannot comment on the accuracy of the quoted statement.

24. Federal Defendants' January 18, 2017, email did not state why they abandoned the prior "common practice" of preparing statistical analyses of public comments under the APA. It is reasonable to assume that the abandonment was a strategic decision to avoid drawing judicial attention to the overwhelming public sentiment in litigation challenging the 2017 Final Rule. Moreover, Federal Defendants' January 18, 2017 email confirms that Federal Defendants in fact did disregard the public's overwhelming sentiment against the 2016 Proposed Rule and 2017 Final Rule.

Response: Disputed. Mr. Aland cites an email that is not in the administrative record and does not "confirm" that FWS "disregarded" the public's comments. Plaintiff is also stating an opinion and that statement is disputed on that basis. Moreover, FWS considers all comments received on a proposed rule. However, as noted above, Congress requires FWS to make listing determinations solely on the basis of the best available science regarding five listed factors. 16 U.S.C. § 1533(a)(1).

25. The public submitted a substantial number of scientific comments after the 2016 Proposed Rule in opposition to removing ESA protection of Greater Yellowstone Ecosystem grizzly bears. These comments were submitted by numerous experienced and highly-respected grizzly bear specialists such as the world-renowned scientist, Dr. Jane Goodall, who submitted a comment for herself and 65 other named experts and renowned grizzly bear expert, Dr. David Mattson, who submitted various comments and is relied upon by Federal Defendants throughout the 2017 Final Rule.

Response: Disputed. FWS considered all comments submitted on the 2016 Proposed Rule. Plaintiff's statement that "these comments"

or Dr. Mattson's comments (it's unclear to what Plaintiff is referring) are "relied upon by Federal Defendants throughout the 2017 Final Rule" is ambiguous and, therefore, disputed. Moreover, FWS does cite Dr. Mattson's peer-reviewed, published articles in the 2017 Rule. FWS did not rely on Dr. Mattson's public comments to the extent that they cite unsupported, unpublished data.

26. Federal Defendants summarized many of these scientific comments in the 2017 Final Rule in the format of 117 "Issues" but summarily dismissed those comments without meaningful analyses. For example, comments presented by Dr. Mattson, who was relied upon heavily elsewhere in the 2017 Final rule, were summarily dismissed when those comments contradicted points relied upon by Federal Defendants to support the 2017 Rule.

Response: Partially disputed. As noted above, FWS does cite Dr. Mattson's peer-reviewed, published articles in the 2017 Rule. FWS did not rely on Dr. Mattson's public comments to the extent that they cited unsupported, unpublished data. And, in any event, the 2017 Rule thoroughly analyzed all of the substantive issues raised during public comments and the 2017 Rule speaks for itself.

27. Grizzly bears at one time roamed in very large numbers across the western United States. Estimates between 1800 and the early 1900s put the number as high as 100,000 but by 1975 the number was reduced to fewer than 1,000 almost entirely due to human-caused mortalities. In addition, over 98% of their habitat had been lost due to population expansion and other causes. As stated in the 2017 Final Rule: "With European settlement of the American West, grizzly bears were shot, poisoned, and trapped wherever they were found, and the resulting range and population declines were dramatic."

Response: Partially disputed. "Pre-settlement population levels for the western contiguous United States are believed to have been in the range of 50,000 animals." 82 Fed. Reg. at 30508.

28. In 1975 approximately 136-312 grizzly bears in lived in the Greater Yellowstone Ecosystem, a vast, mountainous and relatively unpopulated area consisting of over 20 million acres in northeast Idaho, southwest Montana and northwest Wyoming that includes some of America's most cherished wild lands and wildlife.

Response: Undisputed that when the grizzly bear was listed in 1975 the population estimate in the Greater Yellowstone Ecosystem ranged from 136 to 312 individuals.

29. In 1975 Federal Defendants listed grizzly bears in the coterminous 48 states as a threatened species under the ESA. Federal Defendants considered the five statutory listing factors and determined that four of the five were satisfied. Federal Defendants did not designate grizzly bears in the Greater Yellowstone Ecosystem as a distinct population segment in 1975.

Response: Undisputed that FWS published a rule in 1975 designating the grizzly bear in the conterminous United States. Undisputed that FWS did not list the Greater Yellowstone Ecosystem population as a distinct population segment in 1975 because the ESA had not yet been amended to include the distinct population segment language.

30. Grizzly bears have one of the lowest reproductive rates among terrestrial mammals for a number of reasons, including the late age of first reproduction, small average litter size, long intervals between litters and cub mortalities.

Response: Partially disputed. The cited 2016 Proposed Rule states that grizzly bears "have one of the slowest reproductive rates among terrestrial mammals, resulting primarily from the reproductive factors described above: Late age of first reproduction, small average litter size, and the long interval between litters." 81 Fed. Reg. at 13177.

31. The Greater Yellowstone Ecosystem grizzly bear population has not crossed the numerical threshold for recovery in the vast Greater Yellowstone Ecosystem as indicated by the table included in Plaintiff's statement of facts.

Response: Disputed. The Greater Yellowstone Ecosystem population has recovered. *See* 2017 Rule. Because Plaintiff's assertions regarding a table are otherwise vague, FWS cannot further respond.

32. Defendants relied in the 2017 Final Rule (and before) upon an abstract, unscientific formula (Chao2) to estimate the number of bears in the Greater Yellowstone Ecosystem and in total; estimates are likely to be erroneously high.

Response: Disputed. The Chao2 method has been published and peer reviewed. FWS_LIT_06000; FWS_LIT_002244. Also, "[s]cientists have long known that the Chao2 method tends to under-estimate total numbers of females with [cubs-of-the-year] in the population." FWS_Emails_000007; *see also* FWS_Rel_Docs_005889-90 (Chao2 is considered a "conservative" method of estimating population, meaning it produces relatively low estimates compared to other methods).

33. Numerous scientists, biologists, and grizzly bear specialists submitted comments (included in the 2008 AR) with regard to the 2005 Proposed Rule, and a number of those persons set forth numerical thresholds to be achieved before the Greater Yellowstone Ecosystem grizzly bears could be determined to be recovered from the scientific standpoint within the meaning of the ESA as summarized in the following table: (table omitted)

Response: Disputed. To the extent that the data and comments cited by Mr. Aland and submitted to FWS over twelve years ago remain relevant, FWS would have considered them in preparing the 2017 Rule. *See* Administrative Record. FWS is required to assess the

status of a species based on the best scientific data available at the time of the determination—in this case 2017. FWS did so. *See* 2017 Rule and the Memorandum filed by Federal Defendants in support of their Cross Motion for Summary Judgment.

34. The threshold numbers set forth in the 2008 AR were equally valid with Regard to the 2016 Proposed Rule and 2017 Final Rule due to the (a) absence of any significant factual changes that would lower the threshold numbers and (b) occurrence of factual changes that probably would increase those numbers such as increased human-caused mortalities of Greater Yellowstone Ecosystem grizzly bears, continued loss of food sources (including the lure of Greater Yellowstone Ecosystem grizzly bears into highly lethal environments as they search for alternate food sources) and climate changes.

Response: Disputed. Again, to the extent that the data and comments cited by Mr. Aland and submitted to FWS over 12 years ago remain relevant, FWS would have considered them in preparing the 2017 Rule. *See* Administrative Record. FWS is required to assess the status of a species based on the best scientific data available at

the time of the determination—in this case 2017. FWS did so. *See* 2017 Rule and the Memorandum filed by Federal Defendants in support of their Cross Motion for Summary Judgment.

35. Numerous scientists, biologists and grizzly bear specialists also submitted comments with regard to the 2016 Proposed Rule and 2017 Final Rule, and a number of those persons set forth minimum numerical thresholds to be achieved before the Greater Yellowstone Ecosystem grizzly bears could be determined to be recovered from the scientific standpoint within the meaning of the ESA as set forth in the following table (table omitted).

Response: Undisputed that the people listed in Mr. Aland's chart submitted comments. Disputed that their comments represent the best available science. FWS considered all comments received, including those listed by Mr. Aland, and came to a rational conclusion based on the agency's assessment of the best available science. *See* Administrative Record; 2017 Rule; Memorandum in support of Federal Defendants' Cross Motion for Summary Judgment.

36. Federal Defendants summarily rejected these threshold population numbers in the 2017 Final Rule: "We disagree with the suggestion that there must be 2,500-5,000 grizzly bears throughout the lower 48 States for recovery to be achieved in the Greater Yellowstone Ecosystem." However, Federal Defendants did not provide any reasons why they believed these experts were wrong.

Response: Disputed. The numbers cited by Mr. Aland refer to the numbers proposed for a lower-48 metapopulation, not just for the Greater Yellowstone Ecosystem population. Under the ESA, FWS has the authority to identify a distinct population segment and assess the conservation status of that distinct population segment. FWS considered the comments of those who would have preferred that FWS wait until the numbers throughout the lower 48 States reached at least 2,500 to delist the Greater Yellowstone Ecosystem population. Contrary to Plaintiff's assertions, the 2017 Rule goes into great length about the designation of the Greater Yellowstone Ecosystem population as a distinct population segment and the

status of that population. *See* 2017 Rule; Memorandum in support of Federal Defendants' Cross Motion for Summary Judgment.

37. The Greater Yellowstone Ecosystem has not reached its carrying capacity for grizzly bears and can accommodate the additional grizzly bears needed for a recovery within the meaning of the ESA. Federal Defendants agree, stating in the 2017 Final Rule that "regarding carrying capacity, this has never been one of our recovery criteria."

Response: Disputed. As an initial matter, Federal Defendants dispute the assertion that more bears are "needed for a recovery." When FWS issued the 2017 Rule, the science-based habitat recovery criteria had been met since 2007. 82 Fed. Reg. at 30510. As the 2017 Rule notes, "[r]ecovery under the [ESA] does not require restoring a species to carrying capacity…." 82 Fed. Reg. at 30555. Moreover, the statement quoted by Plaintiff goes on to say: "While there are multiple lines of evidence suggesting the population is at or near carrying capacity…we have not used this information to assess recovery. Instead, this information has helped us understand some of the more recent demographic changes the IGBST has documented,

such as a lower population growth rate between 2002 and 2011…." 82 Fed. Reg. 30558.

38. It is critical for the long-term survival of GY grizzly bears to terminate their isolated status and reconnect with other grizzly bear populations, especially the significant Northern Continental Divide Ecosystem population.

Response: Disputed. Connectivity is not necessary, though it is desirable and the 2016 Conservation Strategy addresses encouraging natural connectivity between the Greater Yellowstone Ecosystem and other ecosystems. FWS_LIT_017036, 017066-68

39. Plaintiff adopts as if fully set forth herein the undisputed facts set forth in the statement of undisputed facts to be filed on or before June 13, 2018, by Organization Plaintiffs with regard to Claim 6.

Response: Federal Defendants adopt as if fully set forth herein their responses to all paragraphs Mr. Aland may be referring to.

40. Plaintiff adopts as if fully set forth herein the undisputed facts set forth in the statement of undisputed facts to be filed on or before June 13, 2018, by Organization Plaintiffs with regard to Claim 7.

Response: Federal Defendants adopt as if fully set forth herein their responses to all paragraphs Mr. Aland may be referring to.

DATED: July 11, 2018.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 11, 2018, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF System which will send notification of such filing to the attorneys of record.

/s/ Coby Howell
COBY HOWELL
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